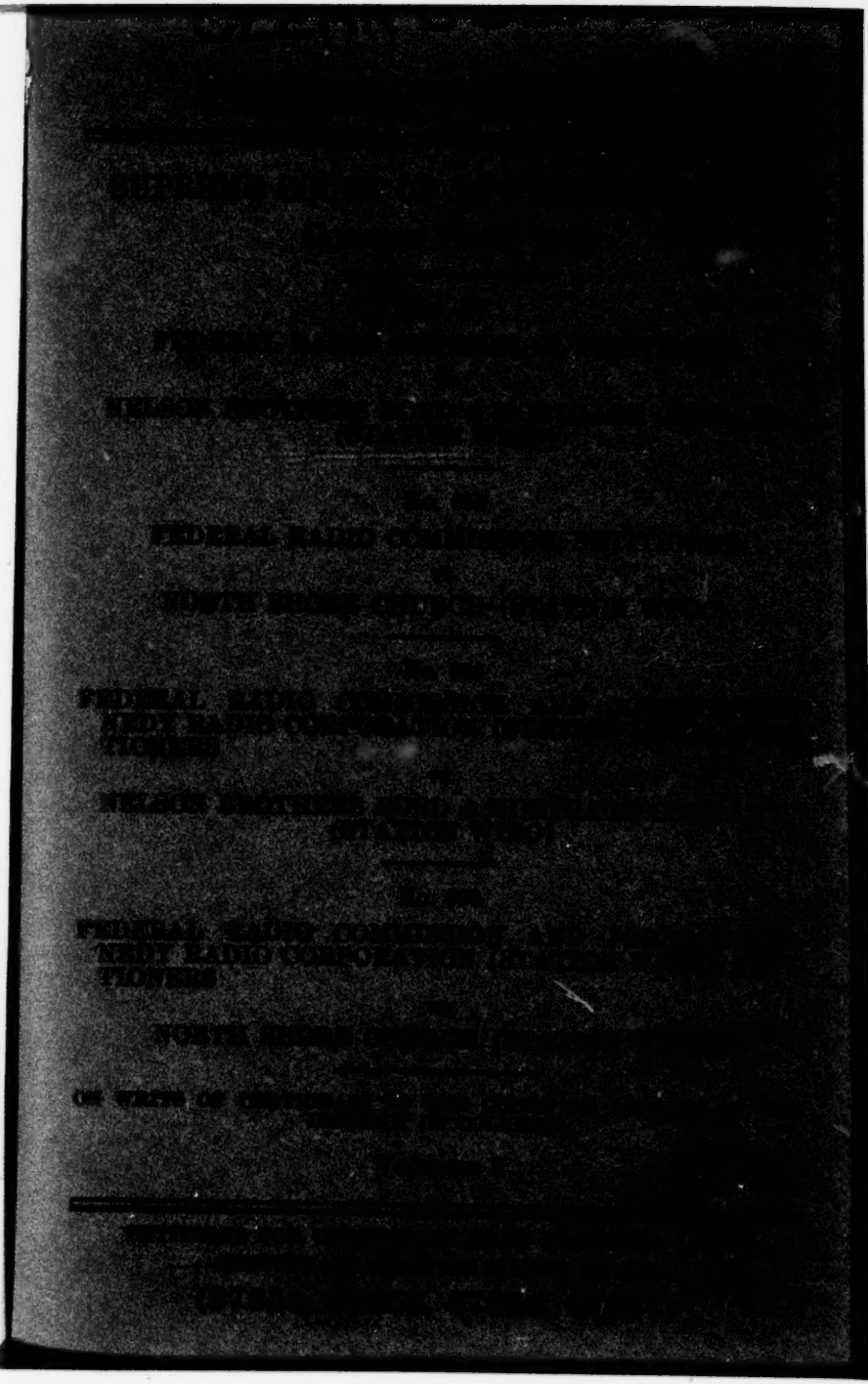

Court of Appeals of the District of Columbia

OCTOBER TERM, 1931

SPECIAL CALENDAR.

No. 5530

NELSON BROTHERS BOND & MORTGAGE COMPANY (STATION WIBO), APPELLANT,

vs.

FEDERAL RADIO COMMISSION, JOHNSON-KENNEDY RADIO CORPORATION, A CORPORATION, INTERVENER; STRAWBRIDGE & CLOTHIER, INTERVENER.

APPEAL FROM THE FEDERAL RADIO COMMISSION.

FILED OCTOBER 24, 1931.

AND

No. 5533

NORTH SHORE CHURCH (STATION WPCC), APPELLANT,

vs.

FEDERAL RADIO COMMISSION, JOHNSON-KENNEDY RADIO CORPORATION, A CORPORATION, INTERVENER; STRAWBRIDGE & CLOTHIER, INTERVENER.

APPEAL FROM THE FEDERAL RADIO COMMISSION.

FILED OCTOBER 27, 1931.

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Court of Appeals of the District of Columbia

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

vs.

FEDERAL RADIO COMMISSION; JOHNSON-KENNEDY RADIO CORPORATION, a Corporation, Intervener; Strawbridge & Clothier, Intervener.

No. 5533.

NORTH SHORE CHURCH (Station WPCC), Appellant,

vs.

FEDERAL RADIO COMMISSION, JOHNSON-KENNEDY RADIO CORPORATION, a Corporation, Intervener; Strawbridge & Clothier, Intervener.

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1 Court of Appeals, District of Columbia. Filed Oct. 24, 1931. Henry W. Hodges, Clerk.

In the Court of Appeals of the District of Columbia.

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

vs.

FEDERAL RADIO COMMISSION, Appellee.

Notice of Appeal.

Now comes Nelson Brothers Bond & Mortgage Company, appellant in the above-entitled proceeding, and states that it is aggrieved by the decision of the Federal Radio Com-

mission rendered on October 16, 1931, effective twenty days from October 16, 1931, which decision was made in re the application of the Johnson-Kennedy Radio Corporation (Station WJKS) of Gary, Indiana, for modification of license (Radio Commission Docket No. 1156), and gives notice of its appeal therefrom to the Court of Appeals of the District of Columbia, assigning in support thereof the following

Statement of Reasons for Appeal.

I.

On September 26, 1930, the Johnson-Kennedy Radio Corporation of Gary, Indiana, (Station WJKS) filed with the Federal Radio Commission an application for modification of its then license and requested a regional frequency of 560 kc., power of 1 KW. night and 1250 watts daytime, with unlimited hours of operation, said frequency, power and hours of operation being then assigned to Nelson Brothers Bond & Mortgage Company (Station WIBO) of Chicago, Illinois, and North Shore Church (Station WPCC) of Chicago, Illinois. Applicant at that time had assignment of frequency of 1360 kc. with power of 1 KW. night and 1250 watts daytime and hours of operation shared with Station WGES of Chicago, Illinois. The application was for the purpose of taking the assigned radio facilities from stations WIBO and WPCC at Chicago, Illinois, and bestowing same upon applicant's station WJKS at Gary, Indiana.

Thereafter the Commission, on October 6, 1930,
2 notified Nelson Brothers Bond & Mortgage Company, appellant herein, that the Commission had examined the application of the Johnson-Kennedy Radio Corporation, and, not being satisfied that public interest, convenience or necessity would be served by granting same, had designated the matter for hearing on April 23, 1931. Such hearing was had and consumed seven days, from April 23 to April 30, 1931, before Ellis A. Yost, the Commission's Chief Examiner. Said Chief Examiner thereafter, on July 28, 1931, filed with the Commission his report, wherein he reviewed the evidence, made findings and recommended as follows:

"In consideration of the foregoing it is recommended that the application of Johnson-Kennedy Radio Corporation for use of the 560 kc. channel now assigned to Stations WIOB and WPCC, be *denied.*"

Thereafter the applicant Johnson-Kennedy Radio Corporation, on August 14, 1931, by its counsel, Mabel Walker Willebrandt, filed exceptions to said examiner's report and requested oral argument in support of its exceptions; and thereafter, on October 16, 1931, without further notice to or hearing of your appellant, the said Commission denied the request of the applicant for oral argument, granted the application of Johnson-Kennedy Radio Corporation for modification of its license, directed the Secretary of the Commission to issue a modified license to said Johnson-Kennedy Radio Corporation authorizing the operation of its station WJKS on the regional frequency of 560 kc. with power of 1 KW. night and 1250 watts daytime and unlimited hours of operation, directed its Secretary to terminate the existing radio broadcasting license theretofore issued to Nelson Brothers Bond & Mortgage Company (Station WIBO) and North Shore Church (Station WPCC) in accordance with the conclusions reached in said decision and the terms and conditions of said licenses, and directed that the order be effective twenty days from the date thereof.

And appellant says that said order is contrary to law.

II.

The Federal Radio Commission, in rendering its
3 decision, made a "Statement of Facts, Grounds for Decision and Order," and appellant says that said statement of facts, in material and substantial parts thereof, is contrary to the testimony and evidence adduced at the hearing before the Examiner, and that the grounds for decision are unsupported by substantial evidence, and that the order is contrary to the evidence, and contrary to the weight of the evidence, and contrary to the substantial evidence and is unsupported in law.

III.

The Federal Radio Commission erred in sustaining the exceptions made by the Johnson-Kennedy Radio Corpora-

tion to the Examiner's report and in reversing the findings of the Examiner without notice to appellant and without affording to appellant an opportunity to be heard, after the hearing and report by the Examiner and prior to its final order granting appellant's regional frequency of 560 kc. to said Johnson-Kennedy Radio Corporation and directing its Secretary to terminate appellant's existing license twenty days after the date of the said order; and in making the said order the Commission acted unreasonably, arbitrarily and capriciously.

IV.

The Federal Radio Commission, in its statement of facts, and the Examiner in his report, find that appellant's station WIBO represents a total cost of $346,362.99, less a reserve for depreciation of $54,627.36, and has been operated since April 1925, with a total monthly operating expenses averaging $17,000, and with a total of 55 persons under employment; and your applicant says that the said order of the Commission destroys appellant's property in and appurtenant to its radio station WIBO, contrary to the Constitution of the United States, or any valid law of the United States, or any regulation or general order of the Commission consistent with law.

V.

The Federal Radio Commission erred in stating as a ground for its decision, that

4 "The granting of this application and deletion of Stations WIBO and WPCC would work a more equitable distribution of broadcasting facilities within the Fourth Zone, in that there would be an increase in the radio broadcasting facilities of Indiana which is now assigned less than its share of such facilities and a decrease in the radio broadcasting facilities of Illinois which is now assigned more than its share of such facilities."

Such ground for decision ignores the fact that Illinois, with respect to regional channels is below the quota determined for it by the Commission and that Indiana has a greater proportion of regional channels, in relation to its determined quota, than has Illinois.

VI.

The Federal Radio Commission erred in stating as a ground for its decision that

"Public interest, convenience and/or necessity would be served by the granting of this application."

Said ground for its decision was unsupported either in law or fact. Said ground for decision and the order made thereon are inconsistent with true public interest, convenience or necessity, by virtue of the fact, established before the Examiner and found by the Examiner, without contrary conclusion by the Commission in its findings, that appellant's station WIBO is meritoriously serving public interest, convenience and necessity on its present assigned regional frequency of 560 kc. already granted to appellant, and which privilege appellant has at great cost prepared itself to exercise and has exercised, and of which privilege said decision and order deprive appellant, with consequent destruction of appellant's property in and appurtenant to its station WIBO.

VII.

Appellant refers to Radio Commission Docket Number 1147, application of the North Shore Church Station (WPCC) for modification of its license, and No. 1104, application of appellant's Station WIBO for modification of its license, reports numbers 188 and 166, respectively, of Yost, Chief Examiner. The Federal Radio Commission decided on June 25, 1931, and September 18, 1931, respectively, that appellant's station WIBO and Station WPCC were serving public interest, convenience and necessity on the present assigned regional frequency of 560 kc.; and appellant states that the Federal Radio Commission herein acted arbitrarily and capriciously in finding, deciding and ordering that appellant's license to use the regional frequency 560 kc. should be terminated twenty days after its said decision, which action of the Commission terminates further operation of appellant's station WIBO in serving public interest, convenience and necessity.

VIII.

The order of the Federal Radio Commission destroys appellant's property in and appurtenant to its Station WIBO

without due process of law, contrary to the Constitution of the United States and contrary to any valid statute or law of the United States properly construed and applicable herein, and contrary to any regulation or general order of the Commission consistent with law; and against the evidence, the weight of the evidence and the substantial evidence; and the order of the Commission is unreasonable, arbitrary and capricious; and save for the stay and reversal of said order by this Honorable Court appellant will be deprived of its property in and appurtenant to its station WIBO, to its immediate and permanent, irrevocable, irremediable and irreperable injury.

NELSON BROTHERS BOND &
MORTGAGE COMPANY,
Appellant,

By LEVI COOKE,
JOHN S. BOYD,
Attorneys.

6 & 7 DISTRICT OF COLUMBIA, *ss:*

Levi Cooke being first duly sworn says that he is attorney for Nelson Brothers Bond & Mortgage Company, appellant herein, and that the foregoing is a true copy of the notice of appeal and reasons therefor to be filed forthwith in the Court of Appeals of the District of Columbia.

LEVI COOKE.

Subscribed and sworn to before me this 24th day of October, 1931.

[Seal Margaret S. Jarvis, Notary Public, District of Columbia.]

MARGARET S. JARVIS,
Notary Public.

The Federal Radio Commission will please take notice that the foregoing notice of appeal and reasons therefor will be filed forthwith in the Court of Appeals of the District of Columbia.

NELSON BROTHERS BOND &
MORTGAGE COMPANY,
Appellant.

By LEVI COOKE,
JOHN S. BOYD,
Attorneys.

Receipt of a copy of the foregoing notice of appeal and reasons therefor is acknowledged this 24th day of October, 1931.

THE FEDERAL RADIO COMMISSION,
By JAMES W. BALDWIN.

8 In the Court of Appeals of the District of Columbia.

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

vs.

FEDERAL RADIO COMMISSION, Appellee.

Petition for Stay.

Now comes the appellant in the above-entitled cause and respectfully shows to this Honorable Court:

1. That pursuant to the Radio Act of 1927, as amended, a notice of appeal and reasons therefor was duly filed in this Court on October 24, 1931.

2. That by decision and order dated October 16, 1931, in the matter of the application of the Johnson-Kennedy Radio Corporation (Station WJKS) of Gary, Indiana, for a modification of its license, (Radio Commission Docket No. 1156), which decision is effective twenty days from the date thereof, the Federal Radio Commission has awarded the Johnson-Kennedy Radio Corporation the regional frequency 560 kc. channel heretofore assigned to appellant at Chicago, Illinois, and has directed the termination of appellant's license to operate its station WIBO. Appellant's station WIBO represents an investment of more than $295,000, and the order of the Commission if executed will destroy appellant's property in and appurtenant to said Station WIBO, without due process of law and contrary to the Constitution and laws of the United States and the Commission's lawful authority.

3. That the nature of the decision of the Federal Radio Commission, the unlawful destruction of property and rights of the appellant and the illegality and irregularity of the proceedings wherein said decision and order were made are fully set out in the notice of appeal and reasons

therefor heretofore filed in the above-entitled cause. The said notice of appeal and reasons therefor are hereby incorporated herein by reference and it is prayed that they be considered a part hereof.

9 4. The execution of said order per its terms will cause irreparable and irremediable injury to the appellant.

Wherefore, the premises being considered, your petitioner being without other remedy, prays this Honorable Court for an order staying the decision of the Federal Radio Commission of October 16, 1931, complained of, pending the determination of the appeal herein, or until the further order of the Court.

NELSON BROTHERS BOND &
MORTGAGE COMPANY,
Appellant,

By LEVI COOKE,
JOHN S. BOYD,
Attorneys.

DISTRICT OF COLUMBIA, *ss:*

Levi Cooke, being first duly sworn, says that he is attorney for Nelson Brothers Bond & Mortgage Company, that he has read the foregoing petition for order staying decision of the Federal Radio Commission of October 16, 1931, and that he verily believes the facts stated in said petition are true.

LEVI COOKE.

Subscribed and sworn to before me this 24th day of October, 1931.

[NOTARIAL SEAL.] MARGARET S. JARVIS,
Notary Public.

Receipt of copy of the foregoing petition for stay order is acknowledged this 24th day of October, 1931.

FEDERAL RADIO COMMISSION,
By JAMES W. BALDWIN.

Endorsed: No. 5530. Nelson Brothers Bond & Mortgage Company, Appellants, vs. Federal Radio Commission, Appellee. Petition for Stay with acknowledgment of service of copy by the Commission. Court of Appeals, District of Columbia. Filed Oct. 24, 1931. Henry W. Hodges, Clerk.

10 & 11 Court of Appeals of the District of Columbia, October Term, 1931.

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

vs.

FEDERAL RADIO COMMISSION.

On consideration of the petition filed in the above entitled cause to stay the decision and order of the Federal Radio Commission of October 16, 1931 (Radio Commission Docket 1156), awarding to the Johnson-Kennedy Radio Corporation the regional frequency 560 kc. channel heretofore assigned to appellant and terminating appellant's license to operate its Station WIBO,

It is ordered by the Court that said petition be and it is hereby granted, and that the decision and order of October 16, 1931, complained of, be and it is hereby stayed pending the determination of this appeal, or until the further order of the Court.

Per MR. CHIEF JUSTICE MARTIN,
October 31, 1931.

Court of Appeals, District of Columbia. Filed Oct. 31, 1931. Henry W. Hodges, Clerk.

12 Court of Appeals, District of Columbia. Filed Nov. 13, 1931. Henry W. Hodges, Clerk.

In the Court of Appeals of the District of Columbia.

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

vs.

FEDERAL RADIO COMMISSION, Appellee.

Notice of Intention to Intervene, and Statement of Interest.

Comes now Johnson-Kennedy Radio Corporation, a corporation organized and existing under the laws of the State

of Indiana, by its attorneys, and pursuant to Section 16(c) of the Radio Act of 1927, as amended, files this, its notice of intervention and statement of interest in the above entitled cause, respectfully showing unto this Honorable Court as follows:

1. The said cause is an appeal under Section 16 of the Radio Act, as amended, from a decision of the Federal Radio Commission of October 16, 1931, Docket No. 1156, in which appellant complains of the Order of the Federal Radio Commission granting the application of Johnson-Kennedy Radio Corporation for Modification of Station License and terminating the existing Radio broadcasting license heretofore issued by the Federal Radio Commission to Nelson Brothers Bond & Mortgage Company.

2. Intervenor is the sole owner, licensee and operator of Johnson-Kennedy Radio Corporation (Station WJKS) located at Gary, Indiana, and is duly authorized to operate said station on a frequency of 1360 kc., with a power output of 1250 watts daytime and 1 KW. night time sharing time with Station WGES—Station WJKS being authorized to use four-seventh- time and Station WGES the remaining three-seventh. Intervenor was the applicant in the proceeding before the Commission from whose decision the appeal was taken in the above entitled cause.

13 3. Intervenor is interested in the appeal in said cause to the extent that a reversal or modification of the decision complained of by appellant would aggrieve it and adversely affect its interests as follows:

(a) Intervenor's Station, WJKS, now renders an excellent public service in the Calumet region and the reversal or modification of the Commission's decision would render it impossible to further extend and enlarge upon that service.

(b) Objectionable interference is now experienced within the service area of Intervenor's Station WJKS through the operation of other Stations on the same and adjacent frequencies and a reversal or modification of the Commission's decision, by which such objectionable interference will be in a large part overcome, will be impossible.

(c) The reversal or modification of the Commission's decision would be contrary to the spirit and intent of Section 9 of the Radio Act of 1927, as amended, in that the decision

has the effect of making a more equitable distribution of broadcasting facilities within the Fourth Zone.

JOHNSON-KENNEDY RADIO CORPORATION,
JOHNSON-KENNEDY RADIO CORP.,
Intervenor,
By MABEL WALKER WILLEBRANDT,
MABEL WALKER WILLEBRANDT,
WM. MONTGOMERY SMITH,
WM. MONTGOMERY SMITH,
Attorneys.

14 & 15 DISTRICT OF COLUMBIA, *ss:*

Wm. Montgomery Smith, being first duly sworn, upon his oath deposes and says that he is one of the attorneys for Johnson-Kennedy Radio Corporation, and its duly authorized agent in this behalf; that he has read the foregoing notice of intention to intervene and statement of interest and knows the contents thereof; and that the statements therein are true of his own knowledge, except statements upon information and belief which he verily believes to be true.

WM. MONTGOMERY SMITH.

Subscribed and sworn to before me this 13th day of November, 1931.

[Seal of Louise S. Dellett, Notary Public, District of Columbia.]

LOUISE S. DELLETT,
Notary Public.

My Commission Expires Aug. 28, 1933.

To: Levi Cooke, Esq., Union Trust Building, Attorney for Appellant; Honorable Thad H. Brown, General Counsel, Federal Radio Commission:

Please take notice that the foregoing notice of intention to intervene and statement of interest will be filed forthwith in the Court of Appeals of the District of Columbia.

JOHNSON-KENNEDY RADIO CORPORATION,
JOHNSON-KENNEDY RADIO CORP.,
Intervenor,
By MABEL WALKER WILLEBRANDT,
MABEL WALKER WILLEBRANDT,
WM. MONTGOMERY SMITH,
WM. MONTGOMERY SMITH,
Attorneys.

Receipt of a true copy of the foregoing notice of intention to intervene and statement of interest is hereby acknowledged.

Copy received, November 13th, 1931.

LEVI COOKE,
LEVI COOKE,
Attorney for Appellant.

Copy received, November —, 1931.

JAMES W. BALDWIN,
Secretary Radio Commission.

16 Court of Appeals, District of Columbia. Filed Nov. 14, 1931. Henry W. Hodges, Clerk.

In the Court of Appeals of the District of Columbia.

No. 5530

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

v.

FEDERAL RADIO COMMISSION, Appellee.

Notice of Intention of Strawbridge & Clothier to Intervene.

Now comes Strawbridge & Clothier and gives notice that it intends to intervene in this case, and that it is an inter-

ested party and entitled to participate in the proceedings to be had upon this appeal.

STRAWBRIDGE & CLOTHIER,
By BETHUEL M. WEBSTER, JR.,
BETHUEL M. WEBSTER, JR.,
PAUL M. SEGAL,
PAUL M. SEGAL,
Its Attorneys.

17 *Verified Statement Showing the Nature of Interest of Intervener.*

WASHINGTON,
District of Columbia, ss:

Paul M. Segal, being sworn, says he is one of the attorneys for intervener, Strawbridge & Clothier, a corporation; and that:

Said Corporation has its principal place of business at Philadelphia in Pennsylvania, and none of the officers thereof resides within the District of Columbia or is now present therein.

The following are the facts showing the nature of interest of intervener in this appeal:

Strawbridge & Clothier owns and operates WFI, a broadcasting station at Philadelphia, operating at 560 kc. with 500 watts, sharing time with WLIT.

September 27, 1930, WFI applied to the Federal Radio Commission for modification of its license to increase power to 1 kw. Pursuant to the rules and regulations of the Commission, WFI filed its written appearance and statement of the facts it intended to prove March 11, 1931. Upon such application and pleading hearing was held April 2, 1931. May 2, 1931, the Chief Examiner of the Commission, before whom such hearing had been held, submitted his report of the testimony and of his findings and conclusions, and recommended that said application be granted in part. June 18, 1931, the Commission denied the application entirely. July 2, 1931, WFI noted its appeal to this Court, *Strawbridge & Clothier, appellant,* v. *Federal Radio Commission,* No. 5436. The record was printed October 27, 1931.

Operating upon the same frequency as WFI are two stations in Chicago which share time, WIBO and WPCC.

Of these WIBO has a power of 1000 watts and WPCC has a power of 500 watts. The distance between Philadelphia and Chicago is 670 miles.

According to the provisions of the Commission's General Order 92, enacted June 17, 1930, WFI is in an under-quota state in an under-quota zone. Similarly WIBO and WPCC are in an over-quota state in an under-quota zone.

18 As one of its reasons for denying the application of WFI the Commission gave:

"If this application were granted objectionable interference would result from the operation of the applicant's station as proposed and stations now operating upon the requested frequency." (5436 R. 29.)

Anticipating the possibility of such finding, WFI had stated in filing its appearance:

"If such interpretation of General Order 102 becomes material in this matter, applicant is prepared to show that the power of each of said respondents (including WIBO and WPCC) should be reduced to the extent necessary for the equalization of such quota assignments and/or the reduction or prevention of heterodyne interference." (5436 R. 40.)

At WFI's hearing evidence in support thereof was introduced. (e. g. 5436 R. 90, 96, 102.)

One of the errors assigned by WFI in its appeal is:

"The Commission erred in failing to find that since Pennsylvania is an under quota state in an under quota zone, in order to achieve a greater equality in accordance with the Act approved March 28, 1928, and with General Order 102 it should increase the power of WFI to 1000 watts and at the same time and for the same purpose reduce the power of WQAM, WIBO and WNOX. It failed to find specifically that this issue was squarely and clearly raised in paragraph G of appellant's Appearance, Statement and Affidavit, of which each station had due notice and an opportunity to be heard on clearly defined issues." (5436 R. 12.)

Notwithstanding the pendency of the above application and the determination of the issues thereunder and the Commission's ruling thereon, the Johnson-Kennedy Radio

Corporation of Gary, Indiana, owner and operator of WJKS, 1360 kc., as a culmination of a series of amendments to an application, on February 16, 1931, finally applied for modification of its license to change its frequency to 560 kc. and to use the facilities of WIBO and WPCC and to delete those stations.

WJKS operates with 1000 watts.

Under the provisions of General Order 92 WJKS is located in an underquota state.

19 Notwithstanding the matters here set forth the Commission conducted a hearing upon this application of WJKS April 23 to 30, 1931, without any notice to WFI of the pendency of the application or of the hearing, and without any opportunity for WFI to be heard. July 28, 1931, the Chief Examiner of the Commission reported the evidence, his findings and conclusions, and recommended that the application of WJKS be denied.

October 16, 1931, the Commission, without notice or hearing or opportunity to be heard to WFI, and without consideration of the rights of WFI, reversed its Chief Examiner and granted the application of WJKS.

Gary is 648 miles from Philadelphia. According to the Commission's statement, released September 25, 1931, (Mimeograph No. 5427), the mileage separation recommended between two stations operating at night with powers respectively of 1 kw. and 500 watts is 1050 miles, in order to minimize objectionable interference in the good service areas of the stations.

The effect of the granting of the application was to lessen the distance between Philadelphia and the transmitter to be licensed to use the facilities of WIBO-WPCC, and to increase the power there used from 500 watts to 1000 watts during that portion of the week theretofore assigned for operation of WPCC, and moreover, in effect, to tend to defeat the contention of WFI that the facilities on its frequency used in Illinois should be so diminished as to permit the granting of its own application pursuant to the showing made at its hearing and according to the provisions of Section 5 of General Order 102, as follows:

"An applicant from an under-quota state in an under-quota zone may apply either for facilities in use in an

over-quota state in that zone or an over-quota state in an over-quota zone." (5436 R. 16),

all without notice, opportunity to be heard, or hearing to WFI and beyond the power and authority of the Federal Radio Commission, contrary to the guarantees of the Fifth Amendment to the Constitution of the United States and of the Radio Act of 1927 as amended.

PAUL M. SEGAL.
PAUL M. SEGAL.

20 & 21 Subscribed and sworn to before me, a Notary Public in and for the District of Columbia, this 14th day of November, 1931.

My commission will expire Nov. 5, 1932.

[Seal of Carolyn G. Groff, Notary Public, District of Columbia. My commission expires ——.]

CAROLYN G. GROFF,
Notary Public.

Proof of Service.

We acknowledge service of true copies of the foregoing notice and statement this 14th day of November, 1931.

LEVI COOKE,
LEVI COOKE,
L. M.
JOHN S. BOYD,
JOHN S. BOYD,
L. M.
Attorneys for Appellant,
THAD H. BROWN,
General Counsel,
Federal Radio Commission.
F. S.

22 Court of Appeals, District of Columbia. Filed Oct. Oct. 27, 1931. Henry W. Hodges, Clerk.

In the Court of Appeals of the District of Columbia.

No. 5533.

NORTH SHORE CHURCH (Station WPCC), Appellant,

vs.

FEDERAL RADIO COMMISSION, Appellee.

Notice of Appeal.

Now comes North Shore Church, Appellant in the above-entitled proceeding, and states that it is aggrieved by the decision of the Federal Radio Commission rendered on October 16, 1931, effective twenty days from October 16, 1931, which decision was made in re the application of the Johnson-Kennedy Radio Corporation (Station WJKS) of Gary, Indiana, for modification of license (Radio Commission Docket No. 1156), and gives notice of its appeal therefrom to the Court of Appeals of the District of Columbia, assigning in support thereof the following.

Statement of Reasons for Appeal.

I.

On September 26, 1930, the Johnson-Kennedy Radio Corporation of Gary, Indiana, (Station WJKS) filed with the Federal Radio Commission an application for modification of its then license and requested a regional frequency of 560 kc., power of 1 KW. night and 1250 watts daytime, with unlimited hours of operation, said frequency, power and hours of operation being then assigned to Nelson Brothers Bond & Mortgage Company (Station WIBO) of Chicago, Illinois, and North Shore Church (Station WPCC) of Chicago, Illinois. Applicant at that time had assignment of frequency of 1360 kc., with power of 1 KW. night and 1250 watts daytime and hours of operation shared with Station WGES of Chicago, Illinois. The application was for the purpose of taking the assigned radio facilities from Stations WIBO and WPCC at Chicago, Illinois, and bestowing same upon applicant's station WJKS at Gary, Indiana.

23 Thereafter the Commission, on October 6, 1930, notified the North Shore Church, appellant herein, that the Commission had examined the application of Johnson-Kennedy Radio Corporation, and, not being satisfied that public interest, convenience or necessity would be served by granting same, had designated the matter for hearing on April 23, 1931. Such hearing was had and consumed seven days, from April 23 to April 30, 1931, before Ellis A. Yost, the Commission's Chief Examiner. Said Chief Examiner thereafter, on July 28, 1931, filed with the Commission his report, wherein he reviewed the evidence, made findings and recommended as follows:

"In consideration of the foregoing it is recommended that the application of Johnson-Kennedy Radio Corporation for use of the 560 kc. channel now assigned to Stations WIBO and WPCC, *be denied.*"

Thereafter the applicant Johnson-Kennedy Radio Corporation, on August 14, 1931, by its counsel, Mabel Walker Willebrandt, filed exceptions to said Examiner's report and requested oral argument in support of its exceptions; and thereafter, on October 16, 1931, without further notice to or hearing of your appellant, the said Commission denied the request of the applicant for oral argument, granted the application of Johnson-Kennedy Radio Corporation for modification of its license, directed the Secretary of the Commission to issue a modified license to said Johnson-Kennedy Radio Corporation authorizing the operation of its Station WJKS on the regional frequency of 560 kc., with power of 1 KW. night and 1250 watts daytime and unlimited hours of operation, directed its Secretary to terminate the existing radio broadcasting licenses theretofore issued to Nelson Brothers Bond & Mortgage Company (Station WIBO) and North Shore Church (Station WPCC) in accordance with the conclusions reached in said decision and the terms and conditions of said licenses, and directed that the order be effective twenty days from the date thereof.

And appellant says that said order is contrary to law.

24 II.

Appellant says that the Federal Radio Commission made a "Statement of Facts, Grounds for Decision and Order." Respecting material parts thereof, the Commission found

facts and reached grounds for decision contrary to the testimony, proofs and evidence presented at the hearing before the Examiner and the said grounds for decision lack support in the substantial evidence adduced on the hearing and are contrary to the evidence, the weight of the evidence and the substantial evidence.

III.

The Federal Radio Commission in making its "Statement of Facts, Grounds for Decision and Order" acted arbitrarily, capriciously and unreasonably in that with respect to the exceptions mentioned in the foregoing reason No. I, it stated as follows:

"With many of the applicant's exceptions, and the objections to certain findings of the Examiner contained therein, the Commission is in agreement. With much of the matter recited in said exceptions, the Commission is not in accord."

And appellant says that in filing said exceptions applicant prayed for oral hearing and the Commission without notice to appellant or hearing on said exceptions made its findings, grounds for decision and order reversing the Examiner's recommendation and without specification of the exceptions sustained or the reasons therefor, and in the making of said order acted unreasonably, arbitrarily and capriciously all to the denial of the rights of appellant.

IV.

The Federal Radio Commission in its statement of facts and likewise the Examiner failed to make findings as to the worth and value of appellant's fixed assets in its Radio Station WPCC, and appellant says that the evidence disclosed its possession of a valuable radio transmission station in connection with its church property, and appellant says that the order of the Commission destroys appellant's property existing in and relating to its radio station WPCC contrary to the Constitution of the United States, the laws of the United States or any proper regulations or regulatory orders of the Commission consistent with law.

V.

The Federal Radio Commission stated as a ground for its decision that the granting of Johnson-Kennedy Radio Company's application and the deletion of Station WIBO and Station WPCC would work a more equitable distribution of broadcasting facilities within the Fourth Zone by increasing the radio broadcasting facilities of Indiana which is now assigned less than its share of such facilities, and decreasing the radio broadcasting facilities of Illinois to which is now assigned more than its share of such facilities.

Appellant says that such ground for decision is erroneous because appellant's station operates upon the regional frequency under its present license of 560 kc. and is one of the several regional stations licensed in Illinois to which regional facilities have been assigned, and says that the Radio Commission ignored its own orders and tabulations regarding assignment of facilities to the several States in reaching the aforesaid ground of decision, the facts being that under the Commission's assignment of regional facilities to the several States and allocation thereof among the States, the State of Illinois is under quota and has in use but little more than half of the total regional facilities assigned to said State, while the State of Indiana exceeds the State of Illinois in the proportion of regional facilities actually in use in said State of Indiana, the latter State in fact having only slightly less than two-thirds of its assigned quota of regional facilities in use therein. And the appellant says that said ground for decision is contrary to any legal application of any law in attempted equalization of radio facilities between Illinois and Indiana, and is a conclusion contrary to any law in this regard, and contrary to any existing facts. And for further reason appellant says that during the pendency of this proceeding and in disregard of the premises of its action herein and the ground of decision last mentioned as justification therefor the Federal Radio Commission has added to the radio facilities assigned to the State of Illinois by increasing the facilities of other stations within the said State of
26 Illinois and in the Fourth Zone, although said additional assignments have not yet equalized the facilities assigned respectively to Illinois and to Indiana in ratio to their designated quotas, and appellant says that

the Commission's above asserted ground of decision for its order deleting and terminating appellant's Station WPCC is unreasonable, capricious and arbitrary, and unlawfully discriminatory as against appellant's privileges, rights and property.

And further appellant says that Commission's entire procedure, to the supposed end of equalization, even if such equalization were justified on the facts in this cause, in entertaining the application of Johnson-Kennedy Radio Corporation whereby the latter corporation seeks to select the facility in Illinois, to wit, the regional frequency 560 kc. and secure its transfer by the Commission from appellant's station WPCC to applicant's station WJKS at Gary, Indiana, is contrary to law and contrary to proper administration by public authority in that it constitutes a substitution for or a limitation of the Commission's proper discretion and judgment in administering a public law for public purposes, by making the procedure dependent upon the primary action of a private person or corporation in selecting the facility for transfer to such private person or corporation's possession and use, and the consequent confiscation, expropriation and destruction in the hands of its present owner of the facility thus transferred.

VI.

The Federal Radio Commission found as a ground for its decision that "public interest, convenience, and/or necessity would be served by the granting of this application". And appellant says that such finding is contrary to the evidence in that by corollary effect the termination of its license and operation of its Station WPCC would end its service for public interest, convenience and necessity, all of which have been found to exist in the operation of said station by the Federal Radio Commission in several prior proceedings of the Commission relating to appellant's station,
27 which has been in existence for a period of more than seven years; and asserts that in accordance with the record in this cause and the finding of the Examiner herein the Federal Radio Commission found that,

"Although the Calumet area is served by Station WOWO, Fort Wayne and several stations in Chicago, Station WJKS is the only station located in this regions which serves a

substantial portion of the area with excellent or even good service."

Wherefore, appellant says that applicant's Station WJKS is, under its present assignment of 1360 kc. competent to deliver excellent or good service so far as frequency and watts are concerned to a substantial portion of the area in the Calumet district, and appellant says that the Commission's order in destroying appellant's Station WPCC on the alleged ground of decision that the public interest, convenience and necessity would be served by the granting of this application in asserted improvement of applicant's present facilities is unreasonable, arbitrary, capricious and discriminatory and without cause or justification in fact or law. Appellant further states that the Federal Radio Commission in its report has made statements which are contrary to the evidence and which contradict the statement of facts shown in the reports of said Federal Radio Commission, dated June 25, 1931, and September 18, 1931, concerning the distinct and commendable service of appellant's Radio Station. The following language was used in its report of June 24, 1931, Docket 1104, sustaining Chief Examiner Yosts's decision in favor of WPCC in another case,

"Respondent station WPCC is now rendering a good radio broadcasting service and one which serves a distinct purpose in this area."

In another report during the pendency of this cause and as late as September 18, 1931, the Radio Commission in the case of WPCC vs. WIBO, Docket No. 1147, declared, "The type of programs offered by Station WPCC is commendable."

Appellant further states that out of more than twenty radio stations broadcasting in the Chicago area, Station WPCC is the only distinc*it*vely religious station broadcasting religious programs on Sunday evenings; and furthermore that while more than twenty other radio stations broadcast from Monday to Saturday an aggregate of
28 *of* more than 600 evening hours, there are no week-day evening programs of religious character, except one hour each week broadcast by appellant over Radio Station WIBO, which hour is used on a division of time arrangement between Stations WPCC and WIBO using the

560 kc channel. And appellant says that the Commission has erred in finding any duplication of appellant's service in Chicago, Illinois, with respect to religious broadcasting during evening hours.

VIII.

The order of the Federal Radio Commission destroys the property and investment of the North Shore Church, appellant herein, in and relating to its Station WPCC without due process of law, contrary to the Constitution of the United States, contrary to any statute or law of the United States, and contrary to any regulations, general order or proper procedure of the Federal Radio Commission consistent with law, is against the evidence, the weight of the evidence, and the substance of the evidence, and is unreasonable, arbitrary, capricious and confiscatory. And appellant says that except for an immediate stay of said order, review of the cause and reversal of said order by this Honorable Court, said North Shore Church, appellant herein, will be deprived of its property and rights in law to its irreparable and irremediable damage and injury.

NORTH SHORE CHURCH,
Appellant,

By LEVI COOKE,
EDWARD CLIFFORD,
Attorneys.

29 & 30 DISTRICT OF COLUMBIA, *ss:*

Levi Cooke being first duly sworn says that he is attorney for North Shore Church, appellant herein, and that the foregoing is a true copy of the notice of appeal and reasons therefor to be filed forthwith in the Court of Apeals of the District of Columbia.

LEVI COOKE.

Subscribed and sworn to before me this 27th day of October, 1931.

[Seal of Louise F. Dyer, Notary Public, District of Columbia.]

LOUISE F. DYER,
Notary Public, D. C.

The Federal Radio Commission will please take notice that the foregoing notice of appeal and reasons therefor will

be filed forthwith in the Court of Appeals of the District of Columbia.

NORTH SHORE CHURCH,
By LEVI COOKE,
EDWARD CLIFFORD,
Attorneys.

Receipt of a copy of the foregoing notice of appeal and reasons therefor is acknowledged this 27th day of October, 1931.

THE FEDERAL RADIO COMMISSION,
By JAMES W. BALDWIN.

31 In the Court of Appeals of the District of Columbia.

No. 5533.

NORTH SHORE CHURCH, Appellant,

vs.

FEDERAL RADIO COMMISSION, Appellee.

Petition for Stay

Now comes the appellant in the above-entitled cause and respectfully shows to this Honorable Court:

1. That pursuant to the Radio Act of 1927, as amended, a notice of appeal and reasons therefor was duly filed in this Court on Ooctober 27, 1931.

2. That by decision and order dated October 16, 1931, in the matter of the application of the Johnson-Kennedy Radio Corporation (Station WJKS) of Gary, Indiana, for a modification of its license, (Radio Commission Docket No. 1156), which decision is effective twenty days from the date thereof, the Federal Radio Commission has awarded the Johnson-Kennedy Radio Corporation the regional frequency 560 kc channel heretofore assigned to appellant at Chicago, Illinois, and has directed the termination of appellant's license to operate its Station WPCC. Appellant's Station WPCC represents a large fixed investment and is of large intangible value in its special field and the order of the Commission if executed will destroy appellant's property in and appurtenant to said Station WPCC, without due process of law and contrary to the Constitu-

tion and laws of the United States and the Commission's lawful authority.

3. That the nature of the decision of the Federal Radio Commission, the unlawful destruction of property and rights of the appellant and the illegality and irregularity of the proceedings wherein said decision and order were made are fully set out in the notice of appeal and reasons therefor heretofore filed in the above-entitled cause. The said notice of appeal and reasons therefor are hereby incorporated herein by reference and it is prayed that they be considered a part hereof.

32 4. The execution of said order per its terms will cause irreparable and irremediable injury to the appellant.

Wherefore, the premises being considered, your petitioner being without other remedy, prays this Honorable Court for an order staying the decision of the Federal Radio Commission of October 16, 1931, complained of, pending the determination of the appeal herein, or until the further order of the Court.

NORTH SHORE CHURCH,
Appellant,
By LEVI COOKE,
EDWARD CLIFFORD,
Attorneys.

DISTRICT OF COLUMBIA, *ss:*

Levi Cooke, being first duly sworn, says that he is attorney for North Shore Church, and that he has read the foregoing petition for order staying decision of the Federal Radio Commission of October 16, 1931, and that he verily believes the facts stated in said petition are true.

LEVI COOKE.

Subscribed and sworn to before me this 27th day of October, 1931.

[NOTARIAL SEAL.] LOUIS F. DYER,
Notary Public, D. C.

Receipt of copy of the foregoing petition for stay order is acknowledged this 27th day of October, 1931.

FEDERAL RADIO COMMISSION,
By JAMES W. BALDWIN.

Endorsed: No. 5533 North Shore Church, Appellant, vs. Federal Radio Commission, Appellee. Petition for stay

of decision and order of Federal Radio Commission. Court of Appeals District of Columbia, Filed Oct. 27, 1931 Henry W. Hodges, Clerk.

33 Court of Appeals of the District of Columbia,
October Term, 1931.

No. 5533.

North Shore Church (Station WPCC), Appellant,

vs.

Federal Radio Commission.

On consideration of the petition filed in the above entitled cause to stay the decision and order of the Federal Radio Commission of October 16, 1931 (Radio Commission Docket 1156), awarding to the Johnson-Kennedy Radio Corporation the regional frequency 560 ke channel heretofore assigned to appellant and terminating appellant's license to operate its Station WPCC,

It is ordered by the Court that said petition be and it is hereby granted, and that the decision and order of October 16, 1931, complained of, be and it is hereby stayed pending the determination of this appeal, or until the further order of the Court.

Per Mr. Chief Justice MARTIN,
October 31, 1931.

[Endorsed:] No. 5533. Court of Appeals of the District of Columbia. Stay Order. Court of Appeals, District of Columbia. Filed Oct. 31, 1931.

HENRY W. HODGES,
Clerk.

34 In the Court of Appeals of the District of Columbia.

No. 5533

North Shore Church, Station WPCC, Appellant,

vs.

Federal Radio Commission, Appellee.

Notice of Intention to Intervene, and Statement of Interest.

Comes now Johnson-Kennedy Radio Corporation, a corporation organized and existing under the laws of the

State of Indiana, by its attorneys, and pursuant to Section 16(c) of the Radio Act of 1927, as amended, files this, its notice of intervention and statement of interest in the above entitled cause, respectfully showing unto this Honorable Court as follows:

1. The said cause is an appeal under Section 16 of the Radio Act, as amended, from a decision of the Federal Radio Commission of October 16, 1931, Docket No. 1156, in which appellant complains of the Order of the Federal Radio Commission granting the application of Johnson Kennedy Radio Corporation for Modification of Station License and terminating the existing Radio broadcasting license heretofore issued by the Federal Radio Commission to North Shore Church.

2. Intervenor is the sole owner, licensee and operator of Johnson-Kennedy Radio Corporation (Station WJKS) located at Gary, Indiana, and is duly authorized to operate said station on a frequency of 1360 kc., with a power output of 1250 watts daytime and 1 KW night time sharing time with Station WGES, WJKS being authorized to use four-seventh time and Station WGES the remaining three-seventh. Intervenor was the applicant in the proceeding before the Commission from whose decision the appeal was taken in the above entitled cause.

3. Intervenor is interested in the appeal in said cause to the extent that a reversal or modification of the decision complained of by appellant would aggrieve it and adversely affect its interests as follows:

35 (a) Intervenor's Station, WJKS, now renders an excellent public service in the Calumet region and the reversal or modification of the Commission's decision would render it impossible to further extend and enlarge upon that service.

(b) Objectionable interference is now experienced within the service area of Intervenor's Station WJKS through the operation of other Stations on the same and adjacent frequencies and a reversal or modification of the Commission's decision, by which such objectionable interference will be in a large part overcome, will be impossible.

(c) The reversal or modification of the Commission's decision would be contrary to the spirit and intent of Section 9 of the Radio Act of 1927, as amended, in that the decision has the effect of making a more equitable distribution of broadcasting facilities within the Fourth Zone.

JOHNSON-KENNEDY RADIO CORPORATION,
JOHNSON-KENNEDY RADIO CORP.,
Intervenor,
MABEL WALKER WILLEBRANDT,
By MABEL WALKER WILLEBRANDT,
WM. MONTGOMERY SMITH,
WM. MONTGOMERY SMITH,
Attorneys.

36 DISTRICT OF COLUMBIA, *ss:*

Wm. Montgomery Smith, being first duly sworn, upon his oath deposes and says that he is one of the attorneys for Johnson-Kennedy Radio Corporation, and its duly authorized agent in this behalf; that he has read the foregoing notice of intention to intervene and statement of interest and knows the contents thereof; and that the statements therein are true of his own knowledge, except statements upon information and belief which he verily believes to be true.

WM. MONTGOMERY SMITH.
WM. MONTGOMERY SMITH.

Subscribed and sworn to before me this 13th day of November, 1931.

[SEAL] LOUISE S. DELLETT,
Notary Public, D. C.

My Commission Expires Aug. 28, 1933.

To Levi Cooke, Esq., Union Trust Building and Edward Clifford, Esq., Union Trust Building, Attorneys for Appellant; Honorable Thad H. Brown, General Counsel, Federal Radio Commission:

Please take notice that the foregoing notice of intention to intervene and statement of interest will be filed forth-

with in the Court of Appeals of the District of Columbia.

JOHNSON-KENNEDY RADIO CORPORATION,
JOHNSON-KENNEDY RADIO CORP.,
Intervenor,
MABEL WALKER WILLEBRANDT,
By MABEL WALKER WILLEBRANDT,
WM. MONTGOMERY SMITH,
WM. MONTGOMERY SMITH,
Attorneys.

37 & 38 Receipt of a true copy of the foregoing notice of intention to intervene and statement of interest is hereby acknowledged.

Copy received November 13th, 1931.

LEVI COOKE,
LEVI COOKE,
EDWARD CLIFFORD,
EDWARD CLIFFORD,
Attorneys for Appellant.

Copy received November —, 1931.

JAMES W. BALDWIN,
Secretary Federal Radio Commission.

Court of Appeals, District of Columbia. Filed Nov. 13, 1931. Henry W. Hodges, Clerk.

39 Court of Appeals, District of Columbia. Filed Nov. 14, 1931. Henry W. Hodges, Clerk.

In the Court of Appeals of the District of Columbia.

No. 5533.

NORTH SHORE CHURCH (Station WPCC), Appellant,

v.

FEDERAL RADIO COMMISSION, Appellee.

Notice of Intention of Strawbridge & Clothier to Intervene.

Now comes Strawbridge & Clothier and gives notice that it intends to intervene in this case, and that it is an inter-

ested party and entitled to participate in the proceedings to be had upon this appeal.

STRAWBRIDGE & CLOTHIER,
BETHUEL M. WEBSTER, JR.,
By BETHUEL M. WEBSTER, JR.,
PAUL M. SEGAL,
PAUL M. SEGAL,
Its Attorneys.

40 *Verified Statement Showing the Nature of Interest of Intervener.*

WASHINGTON,
District of Columbia, ss:

Paul M. Segal, being sworn, says he is one of the attorneys for intervener, Strawbridge & Clothier, a corporation; and that:

Said Corporation has its principal place of business at Philadelphia in Pennsylvania, and none of the officers thereof resides within the District of Columbia or is now present therein.

The following are the facts showing the nature of interest of intervener in this appeal:

Strawbridge & Clothier owns and operates WFI, a broadcasting station at Philadelphia, operating at 560 kc. with 500 watts, sharing time with WLIT.

September 27, 1930, WFI applied to the Federal Radio Commission for modification of its license to increase power to 1 kw. Pursuant to the rules and regulations of the Commission, WFI filed its written appearance and statement of the facts it intended to prove March 11, 1931. Upon such application and pleading hearing was held April 2, 1931. May 2, 1931, the Chief Examiner of the Commission, before whom such hearing had been held, submitted his report of the testimony and of his findings and conclusions, and recommended that said application be granted in part. June 18, 1931, the Commission denied the application entirely. July 2, 1931, WFI noted its appeal to this Court, *Strawbridge & Clothier, appellant,* v. *Federal Radio Commission,* No. 5436. The record was printed October 27, 1931.

Operating upon the same frequency as WFI are two stations in Chicago which share time, WIBO and WPCC. Of these WIBO has a power of 1000 watts and WPCC has a

power of 500 watts. The distance between Philadelphia and Chicago is 670 miles.

According to the provisions of the Commission's General Order 92, enacted June 17, 1930, WFI is in an under-quota state in an under-quota zone. Similarly WIBO and WPCC are in an over-quota state in an over-quota zone.

41 As one of its reasons for denying the application of WFI the Commission gave:

"If this application were granted objectionable interference would result from the operation of the applicant's station as proposed and stations now operating upon the requested frequency." (5436 R. 29.)

Anticipating the possibility of such finding, WFI had stated in filing its appearance:

"If such interpretation of General Order 102 becomes material in this matter, applicant is prepared to show that the power of each of said respondents (including WIBO and WPCC) should be reduced to the extent necessary for the equalization of such quota assignments and/or the reduction or prevention of heterodyne interference." (5436 R. 40.)

At WFI's hearing evidence in support thereof was introduced. (e. g., 5436 R. 90, 96, 102.)

One of the errors assigned by WFI in its appeal is:

"The Commission erred in failing to find that since Pennsylvania is an under quota state in an under quota zone, in order to achieve a greater equality in accordance with the Act approved March 28, 1928, and with General Order 102 it should increase the power of WFI to 1000 watts and at the same time and for the same purpose reduce the power of WQAM, WIBO and WNOX. It failed to find specifically that this issue was squarely and clearly raised in paragraph G of applicant's Appearance, Statement and Affidavit, of which each station had due notice and an opportunity to be heard or clearly defined issues." (5436 R. 12.)

Notwithstanding the pendency of the above application and the determination of the issues thereunder and the Commission's ruling thereon, the Johnson-Kennedy Radio Corporation of Gary, Indiana, owner and operator of WJKS, 1360 kc., as a culmination of a series of amendments to an application, on February 16, 1931, finally applied for modification of its license to change its frequency to 560 kc.

and to use the facilities of WIBO and WPCC and to delete those stations.

WJKS operates with 1000 watts.

Under the provisions of General Order 92 WJKS is located in an under-quota state.

42 Notwithstanding the matters here set forth the Commission conducted a hearing upon this application of WJKS April 23 to 30, 1931, without any notice to WFI of the pendency of the application or of the hearing, and without any opportunity for WFI to be heard. July 28, 1931, the Chief Examiner of the Commission reported the evidence, his findings and conclusions, and recommended that the application of WJKS be denied.

October 16, 1931, the Commission, without notice or hearing or opportunity to be heard to WFI, and without consideration of the rights of WFI, reversed its Chief Examiner and granted the application of WJKS.

Gary is 648 miles from Philadelphia. According to the Commission's statement, released September 25, 1931 (Mimeograph No. 5427), the mileage separation recommended between two stations operating at night with powers respectively of 1 kw. and 500 watts is 1050 miles, in order to minimize obectionable interference in the good service areas of the stations.

The effect of the granting of the application was to lessen the distance between Philadelphia and the transmitter to be licensed to use the facilities of WIBO-WPCC, and to increase the power there used from 500 watts to 1000 watts during that portion of the week theretofore assigned for operation of WPCC, and moreover, in effect, to tend to defeat the contention of WFI that the facilities on its frequency used in Illinois should be so diminished as to permit the granting of its own application pursuant to the showing made at its hearing and according to the provisions of Section 5 of General Order 102, as follows:

"An applicant from an under-quota state in an under-quota zone may apply either for facilities in use in an over-quota state in that zone or an over-quota state in an over-quota zone." (5436 R. 16),

all without notice, opportunity to be heard, or hearing to WFI and beyond the power and authority of the Federal Radio Commission, contrary to the guarantees of the Fifth

Amendment to the Constitution of the United States and of the Radio Act of 1927 as amended.

PAUL M. SEGAL.
PAUL M. SEGAL.

43-47 Subscribed and sworn to before me, a Notary Public in and for the District of Columbia, this 14th day of November, 1931.

My commission will expire Nov. 5, 1932.

[Seal of Carolyn G. Groff, Notary Public, District of Columbia.]

My commission expires Nov. 5, 1932.

CAROLYN G. GROFF,
Notary Public.

Proof of Service.

We acknowledge service of true copies of the foregoing notice and statement this 14th day of November, 1931.

LEVI COOKE,
LEVI COOKE,
L. M.,
EDW. CLIFFORD,
EDWARD CLIFFORD,
L. M.,
Attorneys for Appellant.
THAD H. BROWN,
THAD H. BROWN,
F. N.,
General Counsel, Federal Radio Commission.

48 & 49 Henry W. Hodges, Clerk.

In the Court of Appeals of the District of Columbia.

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

v.

FEDERAL RADIO COMMISSION.

No. 5533.

NORTH SHORE CHURCH (Station WPCC), Appellant,

v.

FEDERAL RADIO COMMISSION.

Stipulation.

Whereas, the above entitled appeals were taken from the same decision of the Federal Radio Commission rendered October 16, 1931, effective twenty days from said date, made in re: the application of Johnson-Kennedy Radio Corporation (Station WJKS) of Gary, Indiana, for modification of station license, (Radio Commission Docket No. 1156), and

Whereas, the record to be submitted to this Court in each of said appeals, and the Statement of Facts, Grounds For Decision and Order of the Commission with reference to each is identical,

Now therefore, it is stipulated and agreed by and between counsel for the respective appellants and the Commission that a single record may be filed for both said appeals.

LEVI COOKE,
Attorney for Nelson Brothers Bond & Mortgage Company (Station WIBO), Appellant.
EDWARD CLIFFORD,
Attorney for North Shore Church (Station WPCC), Appellant.
THAD H. BROWN,
General Counsel, Federal Radio Commission.
D. M. PATRICK,
Assistant General Counsel, Federal Radio Commission.

We consent to the within and foregoing stipulation
MABEL WALKER WILLEBRANDT,
Attorney for Johnson-Kennedy Radio Corporation, Intervenors.

50-54 In the Court of Appeals of the District of Columbia.

No. 5530.

NELSON BROTHERS BOND & MORTGAGE COMPANY (Station WIBO), Appellant,

v.

FEDERAL RADIO COMMISSION.

No. 5533.

NORTH SHORE CHURCH (Station WPCC), Appellant,

v.

FEDERAL RADIO COMMISSION.

Statement in Writing of the Facts and Grounds for the Decision of the Federal Radio Commission as Found and Given by it, Order of the Federal Radio Commission and Record in the Matter of the Application of Johnson-Kennedy Radio Corporation (Station WJKS) for Modification of License.

Comes now the Federal Radio Commission, pursuant to Section 16 of the Radio Act of 1927, as amended by Public Law No. 494, approved July 1, 1930, and files this, its Statement in Writing of the Facts and Grounds for Decision as found and given by it, Its Order, and the Record before it on the hearing of the application of Johnson-Kennedy Radio Corporation (Station WJKS) for modification of license.

FEDERAL RADIO COMMISSION,
By JAMES W. BALDWIN,
Secretary.

55 Form No. 13.

Department of Commerce, Chicago, Ill. Received Sep. 23, 1930. U. S. Supervisor of Radio.
Ack. 10-6-30. L. D. H.

Federal Radio Commission. Sept. 26, 1930.

(To be filled in by the Federal Radio Commission:) Modification File: No. 4-ML-B-667. Station License File: No. —. Call Letters: WJKS. Frequency: ——. Power: ——. Official Number: 708.
Ack. 3-2-31. ——.

UNITED STATES OF AMERICA:

Federal Radio Commission.

Application for Modification of Station License.

(Submit in Duplicate to District Supervisor of Radio in charge of district in which station is located. Swear to one copy.)

To the Federal Radio Commission:

1. Name of applicant: Johnson-Kennedy Radio Corporation.

2. Post office address: State, Indiana. City, Gary. Street, Lake. Number, 540.

3. Nature of modification:

Terms of Present License	Modification Requested
A. Frequency 1360 Kcs.	A. Frequency 560-610 Kcs.
B. Power 1250 Daytime 1000 Nighttime Watts.	B. Power[1] Same (10-14-30) Watts.
C. Hours of operation 4/7 time.	C. Hours of operation Same. Unlimited.
D. Location of transmitter 540 Lake. Lat. 41° 37' North, Long. 87° 16' West.	D. Location of transmitter Same
E. Location of main studio 540 Lake.	E. Location of main studio Same.
F. Call letters WJKS.	F. Call letters[2] Same.
G.	G. .....

[1]If construction of a new transmitter is contemplated, application for construction permit must be filed.

[2]Call letters are designated by the Secretary of Commerce. Any request for change will be submitted to him by the Commission.

56 4. How will the granting of the application serve public interest, convenience, or necessity?

Our station and transmitter are located in Gary, Indiana, in the Calumet Region, at the entrance of the world famous Sand Dunes, adjoining the Indiana State Park and the United States Steel Mills. Gary is the most important steel center in the world, and the Calumet Region is the world's largest industrial region. Our station is known as the "Voice of the Calumet Region."

Gary has a population of over 115,000, and the Calumet District's population is over 800,000. Ninety-five percent of the working people are directly or indirectly with the steel industry or manufacturing industry. The steel mills run continuously twenty-four hours a day and seven days a week. The day is divided into three shifts. The habits, mode of living, and hours of employment are entirely different than in other localities.

WJKS affords hundreds of thousands of people an opportunity to hear patriotic, educational and civic addresses, and be entertained by the people they know and who understand them. It gives the people of this community an opportunity of developing their talents by broadcasting from this station without having to travel great distances to other stations. It brings thousands of people who have never been in this section of the country before into the Calumet Region, giving them an opportunity to visit the largest steel mills in the world, the Sand Dunes, the

Indiana State Park and Gary's wonderful bathing beaches, and other places of interest in this region.

Gary's school system is known throughout the world as the Platoon or Work and Play System. Teachers come from all over the United States to study and learn this system of teaching. We have a children's program every Saturday morning and every Saturday afternoon, and it has become a renowned feature because it affords the children of the community, between the ages of 3 and 16, an opportunity to broadcast. This program is conducted by the teachers of the public and parochial schools, as well as the Parent-Teachers Association.

Gary is a musical center and each school has a band from 100 to 300 pieces, and each band has their designated time for broadcasting, and this is a regular feature.

The Calumet District has over 160 churches of various denominations. All churches, fraternal societies, and civic organizations are invited to use the station every Sunday afternoon for the purpose of broadcasting their services or special features.

Our Sunday program, from early morning until 10:30 P. M. is devoted entirely to church and religious services. Fraternal societies have three hours each month to broadcast special programs; three times a day in the summer the temperature of the water, air and condition of the lake is broadcast for the benefit of the bathers. In winter the conditions for skating, hockey and toboggan sliding and ski is broadcast. Daily announcements are made of the arrival and departure of all vessels entering the Gary harbor.

Special police bulletins are broadcast, as well as items of local interest. We have been the means of locating persons accused of crime as well as lost persons. Each week the towns in the Calumet district have their special program.

The granting of the application will enable this station to properly serve the area which is within its reasonable limits of service. This lower frequency is necessary for us to properly serve our service area because of the absorption due to steel mills, etc. in this locality. The granting of this request will enable Indiana to be more properly represented in the Fourth Zone.

57 5. The applicant's last application for a station license is to be considered as part of this application, and the truth of the statements therein contained is hereby

reaffirmed except in so far as the contrary expressly appears in this application.

6. The applicant waives any claim to the use of any particular frequency or wave length or of the ether as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests a station license in accordance with this application.

Dated this 22 day of Septemb-, 1930.

JOHNSON-KENNEDY RADIO CORPN.,
THOMAS J. JOHNSON,
Applicant.

STATE OF INDIANA,
County of ——, *ss*:

Thomas J. Johnson, being first duly sworn, upon his oath deposes and says that he is the President of the Johnson-Kennedy Radio Corp., above-named applicant and that the statements in the foregoing application are true of his own knowledge, except as to such statements as are therein stated to be on information and belief, and as to such statements applicant believes them to be true.

THOMAS J. JOHNSON.

Subscribed and sworn to before me this 22 day of Septemb-, 1930.

OTTO H. BUTLER,
Notary Public.

Sep. 26, 1930.

58 Patrons Are Requested to Favor the Company by Criticism An-

Federal Radio Commission, Feb. 16, 1931.

Western Union.

Newcomb Carlton, President. J. C. Willever, First Vice-President.

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is Standard Time.

Received at 708 14th St., N. W., Washington, D. C.

CC346 100 1 Extra=WG Chicago, Ill. 16 954A.

James W. Baldwin,
Secretary Federal Radio Commission,
Washington, D. C.:

It is respectfully requested that the amendment of application of Station WJKS at Gary filed by telegraph dated February Fourteenth, Nineteen-thirty, be withdrawn and the following substituted frequency applied for five hundred sixty kilocycles hours of operation from four seventhes to unlimited Stop If under the provisions of general order one hundred two the granting of this application would require the removal of a station or stations using the facilities requested in an over quota state of the fourth zone then the applicant desires station WIBO and WPCC Chicago as the stations to be removed Stop Letter following.

JOHNSON KENEDY RADIO CORP., WJKS,
Gary.

4-M-L-B=667. hearing.

The quickest, surest, and safest way to send money is by telegraph or cable.

59 *Radio Supervisor's Report.*

Application received September 23, 1930. Forwarded September 24, 1930.

Remarks (state any pertinent facts): Applicant requests change in frequency.

H. D. HAYES,
U. S. Supervisor of Radio.

onw.

60 Form No. 20-A-1.

UNITED STATES OF AMERICA:

Federal Radio Commission.

File No.: 4-R-B-564. Official No.: 564. Call letters: WIBO.

Radio Broadcasting Station License.

Subject to the provisions of the Radio Act of 1927, as amended, subsequent acts, and treaties, and all regulations

heretofore or hereafter made by this Commission, and further subject to conditions set forth in this license, the licensee, Nelson Brothers Bond and Mortgage Company, is hereby authorized to use and operate the radio transmitting apparatus hereinafter described for the purpose of broadcasting for the term beginning 3 A. M., E.S.T., September 1, 1931, and ending 3 A. M., E.S.T., March 1, 1932.

The licensee shall use and operate said apparatus only in accordance with the following terms:

1. On a frequency of 560 kc.
2. With power of 1 Kilowatts, with an additional 500 watts, (a) from local sunrise to local sunset only.*
   (b) ——.
   (c) ——.

Heighth of Antenna (from ground or counterpoise to highest point of Antenna), —— meters. Antenna current, —— amperes.

3. During the following period or periods of time: Shares time with Station WPCC, which is licensed to operate Sundays from 10:00 A. M. to 4:30 P. M., and from 6:00 P. M. to 11:30 P. M., Central Standard Time; and such other station or stations that may be assigned on 560 kilocycles to replace former Station WISJ.
4. Under the call letters assigned by the Secretary of Commerce, i. e., WIBO.
5. With the main studio of the station located at 6312 Broadway, Chicago, Ill.

The apparatus hereinabove authorized to be used and operated is located at: Ballard Road, near Des Plaines, Illinois. Lat. 42° 1′ 14″ North, Long. 87° 50′ 8″ West, and is described as follows: Composite-Broadcasting Transmitter. Direct Crystal Control. Last radio stage: two 5 Kilowatt vacuum tubes (W. E. 228-A). Low level modulation. Maximum rated carrier power output 2½ Kilowatts.

For emergency purposes only, when by reason of breakdown or similar reason the said apparatus can not be used, the licensee is authorized to use and operate (but only in

*Average hour of local sunset: September, 6:00 p. m.; October, 5:15 p. m.; November, 4:30 p. m.; December, 4:15 p. m.; January, 4:45 p. m.; February, 5:15 p. m.; Central Standard Time.

accordance with the terms and conditions of this license) the auxiliary radio transmitting apparatus located at:

This license is issued on a temporary basis and subject to such action as the Commission may take after hearing on the application filed by Station WJKS, Gary, Indiana, for the frequency 560 Kilocycles. No authority herein contained shall be construed as a finding by the Federal Radio Commission that the operation of this station is, or will be, in the public interest beyond the term hereof.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Radio Act of 1927 as amended. This license is subject to the right of use or control by the Government of the United States conferred by Section 6 of the Radio Act of 1927.

Dated this 28th day of August, 1931.

By direction of the Federal Radio Commission.

[SEAL.] JAMES W. BALDWIN,
Secretary

cmi.

61 Form No. 20-A-1.

UNITED STATES OF AMERICA:

Federal Radio Commission.

File No.: 4-R-B-556. Official No.: 556. Call Letters: WPCC.

Radio Broadcasting Station License.

Subject to the provisions of the Radio Act of 1927, as amended, subsequent acts, and treaties, and all regulations

heretofore or hereafter made by this Commission, and further subject to conditions set forth in this license, the licensee, North Shore Church, is hereby authorized to use and operate the radio transmitting apparatus hereinafter described for the purpose of broadcasting for the term beginning 3 A. M., E.S.T., September 1, 1931, and ending 3 A. M., E.S.T., March 1, 1932.

The licensee shall use and operate said apparatus only in accordance with the following terms:

1. On a frequency of 560 kc.

2. With power of 500 watts, with an additional ——, watts (a) from local sunrise to local sunset only. (b) for experimentation to determine whether interference results. (c) ——. Height of Antenna (from ground or counterpoise to highest point of Antenna), —— meters. Antenna current, —— amperes.

3. During the following period or periods of time: Shares time with Station WIBO. WPCC to operate Sundays from 10:00 a. m. to 4:30 p. m., and from 6:00 p. m. to 11:30 p. m., Central Standard Time.

4. Under the call letters assigned by the Secretary of Commerce, i. e., WPCC.

5. With the main studio of the station located at: 1011 Wilson Ave., Chicago, Ill.

The apparatus hereinabove authorized to be used and operated is located at: 1011 Wilson Ave., Chicago, Ill., Lat. 41° 57′ 55″ North, Long. 87° 39′ 18″ West, and is described as follows. Composite-Broadcasting Transmitter. Direct Crystal Control. Last radio stage: one 5 Kilowatt vacuum tube (W. E. 228-A). Low level modulation. Maximum rated carrier power output 1 Kilowatt.

For emergency purposes only, when by reason of breakdown or similar reason the said apparatus can not be used, the licensee is authorized to use and operate (but only in accordance with the terms and conditions of this license) the auxiliary radio transmitting apparatus located at: ——.

This license is issued on a temporary basis and subject to such action as the Commission may take after hearing on the application filed by Station WJKS, Gary, Indiana, for the frequency 560 Kilocycles. No authority herein contained shall be construed as a finding by the Federal Radio

Commission that the operation of this station is, or will be, in the public interest beyond the term hereof.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Radio Act of 1927 as amended. This license is subject to the right of use or control by the Government of the United States conferred by Section 6 of the Radio Act of 1927.

Dated this 25th day of August, 1931.

By direction of the Federal Radio Commission.

[SEAL.] JAMES W. BALDWIN,
Secretary.

cmi.

62 4250.

Federal Radio Commission, Washington, D. C.

File No. 4-ML-B-667.

Notice

In re Application of JOHNSON-KENNEDY RADIO CORP., Dated 9/22/30, for Modification of License. Location: Gary, Indiana. Operating Assignment Specified: Frequency, 560 kc.; Power, 1 KW. night, 1250 W. LS.; Hours of Operation, Unlimited.

To —— ——:

You are hereby notified that the Commission has examined the above described application and not being satis-

fied that the public interest, convenience or necessity would be served by the granting thereof has designated the matter for hearing.

(1) The State of Indiana is under quota and the fourth zone is over quota. The applicant states that if it becomes necessary to remove from a station or stations the facilities applied for, it desires to remove said facilities from Radio Stations WIBO and WPCC.

(2) Other related applications are pending before the Commission.

The attention of the applicant is directed to the fact that while his application constitutes a part of the record, it is not a part of the testimony and he should be prepared, at the hearing, to introduce testimony to prove the allegations contained in his application.

The specific grounds mentioned are not to be considered as exclusive of other grounds for the action and eventual decision of the Commission.

63 The Commission has fixed a time and place for a hearing on said application on *April* 23, 1931, at the hour of 10 A. M., at the offices of the Commission, Washington, D. C., subject to the rules and regulations set forth in General Order No. 93.

Your special attention is invited to Subtitle B, Section 7, Paragraph (2) of this order, which reads as follows:

"In order to avail himself of the opportunity to be heard, the applicant shall, within 20 days of the mailing of the notice by the Secretary, file with the Commission a written appearance consisting of a statement of his desire to be heard, together with a statement in writing of the facts which he expects to prove at such hearing and an affidavit showing that a copy of such written statement has been served upon or mailed to all other parties notified of the hearing."

Notices of the hearing in this matter are being mailed to the following parties under date of *March* 25, 1931.

Johnson-Kennedy Radio Corp. (WJKS), Applicant, 540 North Lake Street, Gary, Indiana.

Nelson Bros. Bond & Mortgage Co. (WIBO), 134 North LaSalle Street, Chicago, Ill., Station assigned to 560 kc. frequency.

North Shore Church (WPCC), 1011 Wilson Avenue, Chicago, Illinois, Station assigned to 560 kc. frequency.

Ohio State University (WEAO), 1800 N. High Street, Columbus, Ohio Station assigned to 570 kc. frequency.

Citizens Bank (WHBU), 1101 Meridian Street, Anderson, Ind., Station assigned to 1210 kc. frequency.

Fred C. Zieg (Allen-Wayne Co.) (WGL), 215 W. Main Street, Fort Wayne, Ind., Station assigned to 1370 kc. frequency.

Main Auto Supply Co. (WOWO), 213 W. Main Street, Ft. Wayne, Ind., Station assigned to 1160 kc. frequency.

Hammond Calumet Brdcstg. Corp. (WWAE), 137th Pochman Streets, Hammond, Indiana, Station assigned to 1200 kc. frequency.

Indianapolis Power & Light Co. (WFBM), 48 monument Circle, Indianapolis, Ind., Station assigned to 1230 kc. frequency.

Indianapolis Brdcstg., Inc. (WKBF), 540½ North Meridian Street, Indianapolis, Ind., Station assigned to 1400 kc. frequency.

Charles Middleton (WRAF), 719 Michigan Avenue, La Porte, Indiana, Station assigned to 1200 kc. frequency.

Donald A. Burton (WLBC), 2224 S. Jefferson St., Muncie, Indiana., Station assigned to 1310 kc. frequency.

64 South Bend Tribune (WSBT), 225 West Colfax Avenue, South Bend, Ind., Station assigned to 1230 kc. frequency.

Mr. Chester M. Keen (New), 529 Rudisill Blvd., Ft. Wayne, Ind., Applicant for permit for station to operate on 1210 kc. frequency.

Mr. Ned Lewis Reglein (New), 517 Pine Street, Michigan City, Ind., Applicant for permit for station to operate on 1240 kc. frequency.

The Starr Piano Co. (New), 200 South First Street, Richmond, Ind., Applicant for permit for station to operate on 1120 kc. frequency.

W. S. Shrode & A. E. Stewart, d/b as (New), Shrode & Stewart, 404 Main Street, Rockport, Ind., Applicant for permit for station to operate on 1420 kc. frequency.

F. L. Elliot, M. S. Finley & R. L. Edwards (New), d/b as Hoosier Brdcstg. Co., 1840 N. Meridian St., Indianapolis, Ind., Applicant for permit for station to operate on 930 kc. frequency.

If for any reason the applicant does not desire a hearing, he should notify the Secretary immediately so that notices sent to other parties may be cancelled.

FEDERAL RADIO COMMISSION.
JAMES W. BALDWIN,
JAMES W. BALDWIN,
Secretary.

MBA/res.

Signed for above. Mailed by mail and files Mar. 27, 1931.

65 Federal Radio Commission. Received Apr. 11, 1931. James W. Baldwin, Secretary. By——

Federal Radio Commission, Washington, D. C.

4-ML-B-667.

In re Application of JOHNSON-KENNEDY RADIO CORP., Dated September 22, 1930, for Modification of License.

Notice of Appearance.

Please take notice that the applicant Johnson-Kennedy Radio Corporation hereby appears in the above entitled proceeding and states that it desires to be heard at the hearing set for April 23, 1931. Attached hereto is a statement of the facts which it intends to prove at such hearing and an affidavit showing that a copy of such statement was duly mailed to all parties notified of the hearing in accordance with the Rules and Regulations of this Commission.

Dated Washington D. C., April 11, 1931.

MABEL WALKER WILLEBRANDT,
MABEL WALKER WILLEBRANDT,
739 *Shoreham Building, Washington, D. C.,*
Attorney for Johnson-Kennedy Radio Corporation.

66 Federal Radio Commission, Washington D. C.

4-ML-B-667.

In re Application of JOHNSON-KENNEDY RADIO CORP., Dated September 22, 1930, for Modification of License.

Statement of Facts

The applicant intends to prove at the hearing that:

1. The present assignment of Station WJKS - 1360 kc. is unsuitable to properly cover its normal service area because of absorption due to steel mills in this locality.

2. The State of Indiana is under-quota and the 4th zone is over-quota.

3. The State of Illinios and the Chicago area has more than its equitable share of broadcasting assignments within the 4th zone.

4. The City of Chicago would be adequately served with radio broadcasting programs should stations WIBO and WPCC be removed.

5. Station WIBO is not able to and does not serve public interest, convenience and necessity.

6. Public interest, convenience and necessity would be served and a more equitable distribution of radio facilities would result if the facilities of radio station WPCC were removed.

7. The City of Gary, Indiana has a population of over 115,000; and the Calumet District in which Gary is located has a population of over 800,000.

8. The City of Gary is the steel center of the United States. The employees of these steel mills are employed in three shifts during the 24 hours of the day. The habits, mode of living, and hours of employment are entirely different than in other localities; and Station WJKS offers the means of education, entertainment and contact with public events to this public which no other station serves.

9. Station WJKS has continuously broadcast programs of the highest type.

10. The School system of Gary, Indiana is known throughout the United States. The station puts on a children's program each Saturday morning and every Saturday afternoon. This program is conducted by teachers of the public and parochial schools, as well as the Parent Teachers' Association. The children of the community between the ages of three and sixteen are afforded an opportunity to broadcast.

67 11. Gary, Indiana is a musical center. Each school has a band of from 100 pieces to 300 pieces and each band has its designated time for broadcasting. This is a regular station feature.

12. All churches, fraternal societies and civic organizations are invited to use the station's facilities every Sunday afternoon for the purpose of broadcasting their services or special features.

13. Special Police bulletins are broadcast as well as items of local interest.

14. A special program feature which is proving a valuable public service is rendered by WJKS through its Americanization broadcasts. These programs are of great interest and value to the large foreign-born population residing in Gary and the surrounding area.

15. The applicant will establish such other facts upon the hearing as may tend to show that public interest, convenience and necessity will be served by the granting of this application.

Dated Washington D. C., April 11, 1931.

MABEL WALKER WILLEBRANDT,

MABEL WALKER WILLEBRANDT,

739 Shoreham Building, Washington, D. C.,

Attorney for Johnson-Kennedy Radio Corporation.

68 Federal Radio Commission, Washington, D. C.

4-ML-B-667.

In re Application of JOHNSON-KENNEDY RADIO CORP., Dated September 22, 1930, for Modification of License.

Affidavit of Mailing.

DISTRICT OF COLUMBIA, *ss:*

Vera Mankinen, being duly sworn, deposes and says she is over the age of twenty-one years; that on the 13th day of April, 1931, she mailed a copy of the foregoing statement, dated April 11, 1931, to each of the following:

1. Nelson Bros. Bond & Mortgage Co., 134 North La-Salle Street, Chicago, Ill. (WIBO).

2. North Shore Church, 1011 Wilson Avenue, Chicago, Illinois (WPCC).

3. Ohio State University, 1800 N. High Street, Columbus, Ohio (WEAO).

4. Citizens Bank, 1101 Meridian Street, Anderson, Ind. (WHBU).

5. Fred C. Zieg (Allen-Wayne Co.), 215 W. Main Street, Fort Wayne, Ind. (WGL).

6. Main Auto Supply Co., 213 W. Main Street, Ft. Wayne, Ind. (WOWO).

7. Hammond Calumet Brdcstg. Corp., 137th — Pochman Streets, Hammond, Indiana (WWAE).

8. Indianapolis Power & Light Co., 48 Monument Circle, Indianapolis, Ind. (WFBM).

69-71 9. Indianapolis Brdcstg., Inc., 540½ North Meridian Street, Indianapolis, Ind. (WKBF).

10. Charles Middleton, 719 Michigan Avenue, La Porte, Indiana (WRAF).

11. Donald A. Burton, 2224 S. Jefferson St., Muncie Indiana (WLBC).

12. South Bend Tribune, 225 West Colfax Avenue, South Bend, Ind. (WSBT).

13. Mr. Chester M. Keen, 529 Rudisill Blvd., Ft. Wayne, Ind. (New).

14. Mr. Ned Lewis Reglein, 517 Pine Street, Michigan City, Ind. (New).

15. The Starr Piano Co., 200 South First Street, Richmond, Ind. (New).

16. W. S. Shrode & A. E. Stewart, d/b as Shrode & Stewart, 404 Main Street, Rockport, Ind. (New).

17. F. L. Elliott, M. S. Finley and R. L. Edwards, d/b as Hoosier Brdcstg. Co., 1840 N. Meridian St., Indianapolis, Ind. (New).

By depositing in the branch United States Post Office at 820 14th Street, N. W., City of Washington, copies of the same in securely sealed duly postpaid air mail, special delivery wrappers addressed to the foregoing parties at their respective addresses as set forth.

VERA MANKINEN.

Sworn to before me this 13th day of April, 1931.

[Seal of Wm. Montgomery Smith, Notary Public, District of Columbia.]

WM. MONTGOMERY SMITH,
Notary Public.

Notary Public.
My Commission expires May 24, 1935.

72 Federal Radio Commission, Washington, D. C.

Docket No. 1156.

In re Application of JOHNSON KENNEDY RADIO CORPORATION, Gary, Indiana. Call Letters: WJKS. Application for Modification of License. Frequency Requested, 560 Kilocycles, 1 k. w.; 1,250 W. Local Sunset; Unlimited Time. Present Assignment: 1,360 kilocycles, 1 kilowatt; 1,250 Watts Local Sunset; Shares with WGES. Others notified: WIBO, Chicago; WPCC, Chicago; WEAO, Columbus, Ohio. (For other parties notified because of pending applications, see hearing notice.)

Hearing Room, Federal Radio Commission, National Press Building, Washington, D. C.

Thursday, April 23, 1931.

The above-entitled matter came on for hearing before the Federal Radio Commission at 10 o'clock a. m.

Present:

For the Commission: Ellis A. Yost, Chief Examiner; Asst. Gen. Counsel, Paul D. P. Spearman; Assistant Counsel, Hobart Newman.

73 On behalf of WJKS: Mrs. Mabel Walker Willebrandt, Investment Building, Washington, D. C.

On behalf of WEAO: Hon. Gilbert Bettman, Attorney General, State of Ohio, Columbus, Ohio.

On behalf of WISJ: Ralph S. Fowler, 729 15th Street N. W., Washington, D. C.

Proceedings.

Mr. Bettman: I appear on behalf of Ohio State University, at the request of the president of the University, and as Attorney General of the State of Ohio, to protest, in behalf of Station WEAO, against the granting of this application.

I am very grateful to the Examiner for giving me an opportunity to put in this evidence possibly in advance of the main battle, because we are just sort of incidental, and yet we regard the matter as of great importance to the Ohio State University.

Our station, WEAO, is putting out an extensive educational program which is of great interest to the people of Ohio; and anything which interferes with the reception of that station's transmissions is of vital interest to Ohio State University. That is why we are here.

With reference to Mrs. Willebrandt's suggestion that in advance of the main battle she does not want any
74 technical evidence put in, I desire to present the testimony of Mr. R. C. Higgy, who is the station director of WEAO, and the testimony and the documents which we would like to put before the Examiner are not particularly technical, and if there is any objection on that ground I think we can meet that objection when it comes up.

Chief Examiner Yost: The Examiner understands that it will be very inconvenient for you to be present at the hearing tomorrow?

Mr. Bettman: Yes, it is just impossible for me to be present. It is awfully inconvenient. I should not bring up my own engagements, of course, but I have hanging over me an argument on the Hill at 12 o'clock today, and I am only here because of the vital nature of this matter to us. If the hearing goes on tomorrow I will telegraph to Columbus and have someone here to take my place tomorrow.

Chief Examiner Yost: You may proceed.

Mr. Fowler: Before the proceedings begin, Mr. Examiner, I would like permission to appear on behalf of Station WISJ, Madison, Wisconsin. I think a statement is in order, in view of the peculiar position which WISJ occupies.

That station is now operating on 780 kilocycles under temporary authority of the Commission.

Chief Examiner Yost: Mr. Fowler, you understand that the main hearing will be held tomorrow morning. If you want to note your appearance——

Mr. Fowler: I simply want to note my appearance, because our station was not notified of this hearing and it was simply through other sources that we learned
75 of the hearing at all.

Chief Examiner Yost: I do not understand that.

Mrs. Willebrandt: As I understood it, you withdrew your application. That is why you were not notified.

Mr. Fowler: No, I think not. The situation is this—and I think perhaps a statement will clear it up:

WISJ formerly operated on 560 kilocycles, part time, at Beloit, Wisconsin, and in April of last year the Commission issued a construction permit to move the station to Madison without change in the operating assignment.

In August of last year the Commission temporarily authorized the station to operate on 780 kilocycles, unlimited time, at Madison. In the meantime hearings were held on an application for full time on 780, and that case has not yet been decided by the Commission. If that decision is favorable to WISJ, of course we have no further interest in the 560 kilocycle channel. If, however, that decision is adverse to WISJ, it automatically returns to part time operation on 560 kilocycles, because the present operation is purely an experimental one.

So that if the applicant in this case is applying for the time which is now assigned to the Wisconsin station, of course we oppose the application. If the application is limited merely to the time which is used by WIBO and WPCC, the two Illinois stations, it is beyond our bailiwick.

Chief Examiner Yost: You may be admitted as a party respondent.

Do you desire Mr. Higgy to testify?

Mr. Bettman: Yes.

76 *Testimony on Behalf of Respondent WEAO.*

R. C. Higgy was called as a witness for and on behalf of respondent WEAO and, having been duly sworn, testified as follows:

Direct examination.

By Mr. Bettman:

Q. Give your full name to the reporter, please. A. R. C. Higgy.

Q. What is your connection with WEAO? A. Director of broadcasting of Ohio State University, which operates WEAO.

Q. What is WEAO? A. WEAO is the station operated by the University as an educational broadcasting station.

Q. An application of the Johnson Kennedy Radio Cor-

poration of Gary, Indiana, is pending here. What are the objections on the part of WEAO to the granting of that application? A. We believe that the granting of that application will create additional interference with the reception of WEAO. We know, as a matter of fact, that WIBO now creates considerable interference in northwestern Ohio with the reception of our station, and that the assignment of a station at Gary, Indiana, to this same frequency would create additional interference, which we believe is not in the public interest, convenience and necessity of the citizens of Ohio who are now being served by WEAO.

77 By Chief Examiner Yost:

Q. What is the power of your station? A. 750 watts.

The facts that I mentioned have been determined through a personal survey—that is, the facts that show the interference—have been obtained through a personal survey in the northwestern portion of the state, and we have a large number of reports from listeners showing that WIBO causes interference to the reception of our programs.

Q. Approximately what distances are these from your station? A. WIBO is approximately 265 miles from our station.

Q. I mean, the interference matters. A. About 120 miles; about equidistant, in other words.

Q. How far is Gary from Columbus? A. About 230 miles, I believe.

Q. What frequency do you occupy? A. 570 kilocycles, the adjacent frequency.

By Mr. Bettman:

Q. You referred to some experiment or some surveys. What are they? A. A survey was made by the University, principally through the cooperation of the County Agricultural Agents who are employees of the University in the extension service, who personally interviewed radio listeners——

Chief Examiner Yost: Of course, Mr. Higgy, hearsay testimony would not be admissible. Unless you know that of your own personal knowledge, it would be necessary to

have the person here who made the survey, and have him testify.

78 The Witness: From my own personal knowledge I know that the letters received from the listeners indicate this interference.

Chief Examiner Yost: You can testify to what you know.

The Witness: The definite reports which have been signed by these people interviewed I have also seen, and they are of the same general tenor.

By Mr. Bettman:

Q. How much nearer to Columbus would the granting of this application bring this frequency? A. Approximately 50 miles.

Q. Will you tell the Examiner something of the nature of the service to the people that your station renders, what public interest it has? A. We believe that the University station renders a distinct service to the people of the state in broadcasting educational information that is accurate and unbiased and free from advertising matter. We publish a program, which I have here, giving in detail the lecture programs broadcast, amounting to 35 hours per week.

79 The Witness: We broadcast programs consisting of approximately 80 per cent of lecture and educational material, The balance of the material we believe to be of interest to the people, showing what is going on at Ohio State University, such as the student activities, what their sons and daughters are doing at the University.

Chief Examiner Yost: Is it a full time station?

The Witness: We share time with a station in Youngstown, Ohio.

Chief Examiner Yost: How many hours, approximately, are you on the air each week?

The Witness: Approximately—we vary from 32 to 35 hours.

Chief Examiner Yost: Weekly?

The Witness: Each week; yes.

By Mr. Bettman:

Q. How about northwestern Ohio? What would be the effect of the granting of this application on your station

in northwestern Ohio? A. The granting of this application would increase the signal strength of the station operating on 560 kilocycles, which the applicant, I understand, is asking for.

We made a week ago last Monday, April 13, a field strength survey in that section of the state, and I have definite data here which might be submitted, if it is
80 permitted, showing that information.

Chief Examiner Yost: Unless you can testify to its correctness of your own personal knowledge, it would not be admissible under the rules.

The Witness: I can, because I was a member of the party that made the survey.

Chief Examiner Yost: Then you may testify concerning it.

The Witness: Is it possible to insert it into the record?

Mr. Bettman: It has a chart or graph attached. It probably would be better to introduce it as an exhibit.

Chief Examiner Yost: Do you have it in duplicate?

The Witness: Yes, sir. It simply shows that WEAO does lay down a reasonable field strength in that section of the state, and we are heard there.

Chief Examiner Yost: It may be admitted, if you can testify to its correctness.

I may say, however, for the benefit of the Attorney General, that these matters will be fully gone into at the hearing. Expert testimony will be introduced as to the probable interference that will result, and also the recommended separation, based upon expert engineering skill and knowledge and experience will be put into the record during the progress of the hearing.

Mr. Bettman: The main hearing?

Chief Examiner Yost: Yes.

(Two copies of report of field strength tests relating to WEAO were received in evidence and identified by being marked "Docket 1156, Respondent WEAO Exhibit
81 No. 2", and are filed with the two copies of transcript in possession of the Commission.)

The Witness: If I may add, in addition to the answer to the last question concerning the service of our station, we broadcast an extensive program of market reports—the

only station in the State of Ohio that does this—and I am told by our Agricultural Extension Service that this is an unbiased service and entirely different from that broadcast by any other station. It is a complete market report service. It is an agricultural market report service.

Chief Examiner Yost: Is your station supported by state appropriations?

The Witness: It is supported by state appropriations and is recognized as the department of instruction of the University. It is financed just as any other department of instruction of the university is.

Mr. Bettman: That is why the Attorney General has to represent it.

By Mr. Bettman:

Q. What additional arguments, if any, have you against the granting of this frequency to WJKS? A. About our only argument is that it will create additional interference and make the reception of our station more difficult to the people in northwestern Ohio. We know that there is always difficulty there; and the moving of the station approximately 50 miles closer will certainly create additional interference.

Chief Examiner Yost: Are your hours of broadcasting principally daytime or night time?

The Witness: About half and half; perhaps
82 slightly more in the daytime, but very little more.

By Mr. Bettman:

Q. What connection, if any, has this broadcasting station WEAO with other departments of the State Government in Ohio? A. We broadcast regularly programs arranged by the State Department of Education to the public schools of Ohio. We broadcast also occasional programs of other state departments, such as information and lecture series by members of those state departments. That is continually going on.

Mrs. Willebrandt: If the Examiner please, I object to the admission in evidence of the field strength report
83 signed by J. F. Byrne. There has been no proper foundation laid for the introduction of that document. I beg the Examiner's pardon for not interposing

my objection earlier. I did not understand that it had been even offered in evidence. I understood the witness to have referred to it only.

Chief Examiner Yost: Describe what that is.

Mr. Witness: Mr. Byrne is an instructor in the Department of Electrical Engineering, and Mr. Byrne and I personally made this survey on April 13. We personally made the survey together. He is an instructor in the department of Electrical Engineering with which the broadcasting station is associated, as the letterhead will show.

Chief Examiner Yost: Mr. Higgy, are you qualified to testify as to the technical correctness of this?

The Witness: I am.

Chief Examiner Yost: Did not Mr. Byrne make it?

The Witness: We made it jointly. He just happened to have signed the report. I may say that this is one of the projects of the Ohio Engineering Experiment Station, a field strength survey of the State of Ohio, which Mr. Byrne heads. He signed it because we thought perhaps his work in that direction is recognized, and I have not signed any of the former reports.

By Mr. Bettman:

Q. What was your actual connection with that survey? A. Actually I made as many measurements as Mr. Byrne did.

Chief Examiner Yost: And you can testify that they are correct?

84 The Witness: Yes.

Chief Examiner Yost: I can see no objection to admitting it.

Mrs. Willebrandt: I object to his qualifications as an expert. The proper foundation has not been laid.

The Witness: Do you wish me to state my qualifications?

Chief Examiner Yost: You may.

The Witness: I am a graduate of Ohio State University, department of Electrical Engineering. I have taught Electrical Engineering and Radio Communication courses for five years in the University and have had radio experience since 1912, as the records of the Department of Commerce will show.

Chief Examiner Yost: The Examiner thinks the witness is sufficiently qualified to testify as to the correctness of

these measurements, as he observed them and helped to make them and knows them to be correct. They are admitted.

By Mr. Bettman:

Q. Is there anything further? A. I have one further statement which is signed by the president of the University. I do not know whether this is admissible or not.

Chief Examiner Yost: It is not admissible under the rules.

The Witness: For example, a statement showing the importance of the university's program and the backing of the programs by the university, showing that the university is definitely behind the station.

By Mr. Bettman:

Q. You know those facts to which you have just
85 testified, of your own knowledge? A. I do.

Q. Is there anything further? A. I think not.

Chief Examiner Yost: Cross examine.

Cross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. Did you prepare the graph and report yourself? A. Mr. Byrne prepared the graph and the letter.

Q. Did you have anything whatsoever to do with the preparation of it? A. I assisted him in calculating the field strengths from the readings as taken on the equipment.

Q. Were you with him when he made the field tests? A. I was; yes.

Q. The letter as addressed by Byrne to you, then, is really your joint report? Is that your testimony? A. Yes, essentially.

Q. Then having been qualified as an expert, let me ask you what interference on adjacent frequencies is caused by? A. It is caused by the receiving set not being able to distinguish between stations, only 10 kilocycles apart.

Q, That is its result; but may I ask you to explain your answer further as to whether distance is the cause of inter-

ference on adjacent frequencies. A. The cause is due to the fact that both stations lay down in that vicinity, the

86 vicinity of northwestern Ohio which I have mentioned, a similar signal, that is, one of similar strength, being nearly equidistant, and the average receiving sets now being used by the listeners are not able to distinguish, are not selective enough to distinguish, between signals 10 kilocycles apart.

Q. Is distance of separation of stations the one factor which causes the result you describe? A. No; there is naturally a difference in various makes and manufactures of radio receivers. Some are more selective and are able to differentiate between closer limits than others.

Q. Am I right in stating that you are testifying that it is the kind of receiving sets rather than the distance that the stations are separated, that causes interference? A. It is due to both causes, both the strength of the station and the type of receiving sets used. If the interfering station were a greater distance away, there would be less signal from it and there would be correspondingly less difficulty on one particular receiver——

Q. Is it a fact that the interference on adjacent frequencies is caused by so many other factors than mileage that a shift of a few miles one way or the other may or may not better the service? A. The shift in question is over a distance corresponding to about one third of the distance from the transmitting station to the interfering area, which is an appreciable distance.

87 Q. What is the distance in this case to which you refer? A. The distance from Gary to Ohio State line, which is approximately 100 miles.

Q. The distance from where? A. Gary, Indiana, to the Ohio State line; that is, the line between Indiana and Ohio State.

Q. If you measured it by the distance from the Gary station to your station, how much closer in mileage would it bring this frequency? A. I am not certain that I understand your question. You mean, to measure the difference between WIBO and WEAO's distance, and Gary, Indiana, and WEAO?

Q. I am referring to your direct testimony of 50 miles, in your direct testimony. A. You recall that I said "approximately." I am not definitely advised of the exact

location of WIBO and, accordingly, have not been able to make definite measurements on the map. I have measured from a point on the north side of Chicago where I believe they are located, and that showed it to be approximately 50 miles farther.

Q. In your direct testimony you said that your station objected to the granting of this application requested by the Gary station because it would bring the frequency 50 miles closer. A. Yes.

Q. Is that 50 miles or 30 miles, as a matter of fact? A. As I say, I have no map before me and I do not know the exact location of WIBO.

Q. You did not make those measurements on which you base your 50 mile statement? A. I made measure-
88 ments, but not knowing the exact location of WIBO I would say it is between 30 and 50 miles.

Chief Examiner Yost: Testimony will be introduced that shows the exact distance.

The Witness: It seems to me that is merely a matter of fact.

By Mrs. Willebrandt:

Q. Your wattage is 750? A. It is; yes.

Q. You spoke of your service area. What territory were you referring to? A. We know, for example, its field strength measurements will show that it lays down a reasonable signal to 120 miles.

Q. So you are objecting to an interference within a circle measured by a radius of 150 miles? A. At least that.

Chief Examiner Yost: A hundred and fifty or 120?

The Witness: This shows (indicating) that we lay down a satisfactory signal to 180 miles. We have a good signal at 120 miles.

Chief Examiner Yost: Day or night, or both?

The Witness: The measurements of field strength are usually made in the daytime, on ground wave only.

By Mrs. Willebrandt:

Q. What do you claim is your night time distance? A. Our night time distance, at present, is entirely limited due

to this interference of WIBO. We are heard satis-
89 factorily to the corner of the state, approximately 140 miles, at night, with some interference.

Q. I just wanted to get it clear from your testimony that the basis of your objection is that the granting of this application will cause you interference in this 140-mile radius. How much will it shrink your 140 mile radius? A. Probably as much as 20 or 30 miles; about half the distance.

Q. So that you would then have a service area on 750 watts of 120 miles instead of 140 miles? A. Yes, if you take 140 miles as our satisfactory service range.

Q. Is that daytime or both? A. This was based on field strength measurements made in the daytime on what is known as the ground wave.

Q. Do you want to modify your answer with respect to the night time? A. I think not.

Chief Examiner Yost: Is the interference principally at night?

The Witness: Yes, sir; principally at night, almost entirely at night.

Mrs. Willebrandt: That is all.

Redirect examination.

By Mr. Bettman:

Q. This shrinkage would be back from the borders of Ohio? A. Yes. It would mean that we would not serve the state.

90-103 Mr. Bettman: That is all.

Recross-examination on behalf of applicant.

By Mrs. Willebrandt:

Q. You stated that this would increase the interference and deteriorate your service, bringing you down from 140 to 120 miles. How do you know that? A. Based on engineering facts.

Q. What engineering facts? A. And principles,—that the signal strength of the station decreases by the square of the distance. That is an estimate that I have made bearing that principle in mind.

104 *Testimony on Behalf of the Applicant.*

Thomas J. Johnson was called as a witness for and on behalf of the applicant and, having been duly sworn, testified as follows:

Direct examination.

By Mrs. Willebrandt:

Q. Please state your name and relationship to the case. A. Thomas J. Johnson, 540 Lake Street, Gary, Indiana. Connected with radio station WJKS, owned by Johnson-Kennedy Radio Corporation, of Indiana, 540 Lake Street, Gary, Indiana, holding a license from the Federal Radio Commmission at the present time on a frequency of 1,360 kc. with 1,250 watts powers in the daytime and 1,000 watts at night, four-sevenths time, sharing with WGES of Chicago.

Q. This station has made an application for a modification of license. You have applied for what frequency? A. 560, and the same power we have now, a thousand watts at night and 1,250 watts daytime, full time.

105

Q. Where is your transmitter located? A. In Gary, Indiana. It is right on the southern shore of Lake Michigan. I don't know the latitude and longitude of the transmitter, if that is what you mean.

Q. When does your present license expire? A. October 31, 1931, by order of the Radio Commission.

Q. Will you please state to the Examiner, briefly, a history of this radio station from the beginning? A. In 1926 the Emerson School of Gary, or some of the officials of that school, had conceived the idea of wanting to erect a broadcasting station. Some of the officials of the school agreed to finance the proposition and take the funds from the school funds. They had made arrangements to erect the station, but when they came to get the money, they found the law prohibited them from giving any money whatsoever from the school funds. They came to me and asked if I would lease or loan or give to the group of school officials sufficient ground for the purpose of erecting towers and allow them to have a studio in one of my buildings. I told them I would.

Then they had no funds and could not proceed. I
106 then decided that I would erect the radio station, myself, a broadcasting station. I did that. I began to erect the station and completed it in the latter part of December, 1926.

We did not send our application—or the application, at any rate, was not received by the Department of Commerce, until after the radio law was signed. Then we made application to the Federal Radio Commission, and after a hearing in August, 1927, they granted us a license to broadcast on 1,290 kilocycles with 500 watts power, to share time with WSBC of Chicago.

We continued to broadcast on that frequency, using that power, until the reallocation in November, I think, of 1928.

Then the Commission assigned us 1,360 kilocycles, four-sevenths time, to share time with WGES of Chicago.

Shortly after the assignment of this frequency we found that our reception was very poor on account of interference, and we made complaint to the Commission, and shortly after that they granted us 1,000 watts power at night time and 1,250 watts in the daytime, with four-sevenths time; and we have been operating on that frequency and that time ever since.

Q. What type of population is there in Gary? A. Gary is a home community. Gary is the largest steel center in the world and it is located in the Calumet region, which is the largest industrial center of the world. Gary has a population of approximately 110,000 people, while the Calumet region has a population of between 800,000 and 1,000,000 people.

107 Fully 90 per cent of the people of the Calumet region depend directly or indirectly for employment and livelihood upon the steel industry. About 60 per cent of the population of the Calumet region are foreigners, foreign born.

Statistics show that we have somewhere in the neighborhood of sixty-odd different nationalities in Gary and the Calumet region.

Q. Does your station serve these nationalities particularly? A. By putting on programs of a type in their own language and programs that are presented by their own people.

Q. Yes. Give the specific amount of time and the kind of your foreign unit broadcast. A. We have a weekly colored program that is presented by the colored artists from the Calumet region. In addition to that, we have a Hungarian program, Italian, Mexican, Spanish, German, Russian, Polish, Croation, Lithuanian, Scotch and Irish.

These are weekly programs. Each of the nationalities have their own time, and their talent is furnished locally.

The programs are presented in their own language and anonuncements are made in their language and then announcements made in English. These programs have been very, very beneficial and of great help to these for-
108 eign born people; and there is no charge whatsoever made for any of these programs. It is all voluntary.

By Chief Examiner Yost:

Q. What is the character of the programs, and why do you say they have been helpful? In what way? A. They are musical, educational and instructive.

Q. Instructive in citizenship? A. In citizenship.

Q. And American ideals? A. American ideals, and the duty they owe to the community and the duty they owe to the nation.

By Mrs. Willebrandt:

Q. How do you get the persons to put on the particular nationalities' programs? What does your station do in that connection? A. We get in touch with the leader of that particular nationality and then show them the advisability and advantage that their programs would be to their community, and they in turn get their various people to participate in these programs. They prepare their programs weeks in advance and have different artists.

Q. What do you mean by a leader? Do you mean, somebody who speaks that foreign language exclusively, or some one who is an American citizen? A. A leading American citizen of that nationality.

Q. The aim of these programs is what? A. To entertain the people and to also show them their duty as citizens and to aid in the community proposition.

Q. You referred, Mr. Johnson, to a connection of
109 this station with the public school system of Gary. A. There was never any connection between the

school system and the station, financially or corporately. Anything we do for the schools is done voluntarily.

Q. What tie-up is there between the schools and your station as far as programs are concerned, if any? A. Co-operation with both the school officials, the teachers and the parent-teachers association.

Just before that I might state that as far as our transmitter location is concerned, it is located within probably 600 feet of the southern shore of Lake Michigan, at the entrance to the sand dunes, close to the Illinois steel mills and the national park. Gary, as you know, is only 24 years old. It will celebrate its 25th anniversary in June of this year.

The steel mills run continuously 24 hours a day, three shifts, eight hours each. The people who are employed in these mills change shifts. They never have regular shifts. They have a two-week period one time, and the next two-week period at another.

The blast furnaces are continually running. It costs in the neighborhood of $7,500 to start a blast furnace, so they have got to keep those blast furnaces running continuously, and the only time they stop is when one is out of order,
and then a new one that has been prepared is put into
110 operation.

Q. So, as a matter of fact, you have people listening to your station, if you were broadcasting, 24 hours out of the day instead of the ordinary daylight and evening hours? A. We have requests for programs all during the day, but on account of our limited time we are unable to put on as many of the programs as we would like to do. I mean a 24-hour day.

Q. There is no time in the 24 hours in Gary when somebody is not having his breakfast and reading his morning paper, whether it is a morning or afternoon paper? A. No.

Chief Examiner Yost: What hours does this station broadcast now?

The Witness: From 7, sometimes 6, in the morning, to 8:30. Then we are off. Up until the past two or three weeks we broadcast from 11 o'clock until 4, and then we are off from 4 until 7, and then we are on from 7 until 9.

We are off then until 10:30, and then we go on at 10:30 and broadcast until 12.

On four nights a week, Monday, Tuesday, Wednesday and Saturday nights, we are permitted, under an arrangement we have with the station that shares time with us, to continue broadcasting until the wee hours of the morning.

On Thursday, Friday and Sunday we sign off at 12 o'clock so as to allow the other station to broadcast.

At the present time we are broadcasting—on ac-
111 count of broadcasting the Sox baseball game our morning hours are practically the same, but we start at 12:30 o'clock noon time and run until 6. We are back on the air again at 7:30 and run to 9, and then from 10:30 to 12 every night.

On Mondays, Tuesdays, Wednesdays and Saturdays we run from 12 until 4 in the morning; and on Thursday, Friday and Sunday we sign off at 12 o'clock midnight, and then go back again on the air at 2 o'clock and broadcast until 4.

By Mrs. Willebrandt:

Q. In what way does your station tie into the peculiarities that you have pointed out of the laboring hours of the population there and their interests? A. We try to give as great variety of entertainment for the different shifts as possible in our various programs.

Q. Do you have any chain programs at all? A. No; we have never had any chain programs. We have never made application for a chain program. We have only one studio, and that is located in Gary. We have never had any studio in Chicago or elsewhere. Any programs we have are presented locally by remote control from that district of ours.

Q. Do you have any arrangement whereby you work with the school system of Gary? A. Yes. The Gary school system is known throughout the world as the work, play and study plan. It is recognized as the greatest school system in the United States; and every year, and at various times during the year, teachers from all over the country come to Gary to learn the system and to adopt it in various schools. They not only teach the educational
112 proposition, but they instruct their children in music, in mechanics, and do everything for the child to give

a training not only in education, but a training so that they can make a living.

We have 35 public schools in Gary and 15 parochial schools, and in the neighborhood of 30,000 children attending the schools. Emerson School is the largest of
113 four high schools. There are 2,700-odd children enrolled. Emerson School has three bands. There are over 600 boys and girls taking advantage of the instruction given in music. The Emerson concert band has 110 boys. The girls' band has 90 members, and the concert band consists of boys and girls, the third band, having 85 members. There are 15 bands in the Gary schools alone, ranging in number from 45 to 150.

Each of these bands has regular weekly rehearsals. We have the largest colored high school band, and each of the 15 bands broadcasts regularly over Station WJKS. The broadcasting is done from their band room in their auditorium.

By Mrs. Willebrandt:

Q. You have linked up with remote control each one of the schools, then? A. Yes—well, now, that is with the Emerson School. The other bands come to the studio or to some of the halls where we have remote control, and play. During these broadcasts, especially in the daytime, the other schools have recreation periods and the children assemble in their auditorium and listen to their bands.

Q. May I ask you if it is part of the school policy and school system there to stimulate musical rivalry between the bands by the method of your broadcasting? A. It is, and they have contests for the various school bands. They hold contests in the Gary Memorial Auditorium. For the past four years either one or two of our bands have won prizes in the national high school contest. Each of
114 these bands have their own time for broadcasting, and that has been continued ever since the station has been licensed.

By Chief Examiner Yost:

Q. What is wrong with your present assignment? A. We have interference. We are constantly interfered with, with noise and hum and cross talk, and you can't get the station at various times.

Q. When stations are operating with your station on the same and adjacent frequencies? A. There are some stations there.

Q. I mean, that cause interference? A. Yes; a station in Syracuse on the same frequency.

Q. How far is that from your station? A. I don't know, but we have heard their call letters repeated during the time of our broadcasting.

Q. What assurance have you that there will not be as much or more interference or cross talk on the frequency that you are now seeking. A. Because the Chicago stations which are in the neighborhood of 30 or 40 miles from our locality—we tune in, and their reception is clear while ours is not; and the lower the wave they are, the more interference there is.

Q. Your power would be the same if your application is granted; is that right? A. Yes.

By Mrs. Willebrandt:

115 Q. With reference to your service area, do you get the worst interference? A. We get the worst interference practically from the south, southwest and east.

Chief Examiner Yost: What territory do you feel that you serve now, fairly well? — all of Gary, and how far surrounding it?

The Witness: About two or three miles.

Mr. Clifford: How far?

The Witness: About two or three miles outside of Gary.

By Mrs. Willebrandt:

Q. Is that service within Gary and just outside free from interference on the east and southeast? A. Not all the time; no.

Q. Have you heard other stations come in there? A. Yes; I have.

Q. How extensively have you inspected your service area to determine the amount of broadcast service you are giving the community? A. I am never out in the evening during hours of broadcasting but what I tune in to a radio at any place I find it; and at various times I will go out

in an automobile equipped with radio and drive around and test as to the reception.

Q. You have conducted these inspection trips over some period of time in the past? A. For a year or more.

Q. As a result of that, you have found what? A. I have found interference to the southwest or south and east, with our station, and that was within a radius of
116 15 or 20 miles from our transmitter.

Chief Examiner Yost: Yours is the only station in Gary?

The Witness: Yes; the only station in the northern part of Indiana. There is one station in South Bend, and there is the Hammond station with studios in Chicago, a 100-watt station.

By Mrs. Willebrandt:

Q. Will you describe the broadcasts that you have for children? A. Another school feature is that we broadcast sport events, such as baseball or basketball and football. They have night football there so as not to interfere with their studies. The fields are lighted up and we broadcast at various times their affairs.

In addition to that we have a special feature known as "Learn to Speak English." This program is put on daily between 7 and 7:30 and sponsored and presented by the teachers of the Gary schools. The object of the program is to give our foreign born an opportunity to learn to speak English. We have public night schools, and a great
117 number of our foreign residents are working—their shifts are so uncertain—they have two weeks or so —and a great number of them do not take advantage of it. This program is put on by the teachers of English in the Gary schools. It is purely elementary, and from my observation and inspection it has done wonders and a great amount of good to our foreign people, especially considering the number of letters and inquiries we have had daily after those affairs are presented.

Q. Would there be a demand for more of that type of service if you had more time to give? A. Yes; a demand for every one of those educational features if we had more time. All through our district we have had demands for these programs, but were unable to put them on, on account of having limited time.

Q. Go right ahead briefly with the rest of your program and link-up with the schools. A. The children's program every Saturday afternoon, ever since the station has been licensed—we put on a program from 1:30 to 4 o'clock. The children from the Parochial and Public Schools are invited to participate in these programs and the children are brought by their parents or their teachers to the studio. Every child, irrespective of nationality or color or creed, is given an opportunity to broadcast. There is no discrimination made. We have so many children at-
118 tending these programs that we had to divide them into groups from A to M one week, and from M to Z the other.

Q. How is your tie-up with the school system—in respect to grades, or anything like that? A. Irrespective of grades, up to the age of 16.

The teachers have various groups and various plays, and any child who is not up in his studies is not permitted by the teacher to broadcast that week; and they find a marked improvement in their studies because they have the encouragement of the teachers and of the parents, because they feel very proud to have their children broadcast.

In addition to that, the teachers put on various debates, and the children themselves. Especially the 4th, 5th and 6th grade children prepare their own material and secure their material from the school libraries or the public library.

We had one debate a week ago, "Resolved: That Thomas Edison has done more for humanity than Henry Ford."

Another one was, "Are independent stores of more advantage to the community than chain stores?"

The children prepare all their own topics. The teachers never prepare that for them.

In addition to that, the teachers arrange little playlets, and they are presented in the auditorium of the school, and they have them broadcast over the radio station; and then every month or so each one of the schools tries to put on a little play or program at one of the local theaters
119 as a special performance, and all of the children of that school are invited as guests of the theater and of the station to participate in this little performance.

Q. Are these programs appreciated and liked by the people in your service area? A. They are just delighted with them.

Q. How do you know that? A. From the great number of people that come there. On some Saturdays we have 200 children all trying to get on during those two or three hours, and we find it almost impossible to do it. We had to separate the children into groups according to their names. You can't pick them out by age, because that would not work; there would be discrimination if you did that. So we pick them out according to letters from A to M and from M to Z.

Q. With respect to people phoning in expressing appreciation of programs, have you had any experience in that line? A. During the children's programs we have had so many requests that, at the request of the telephone company, we discontinued the requests, because people who wanted to put in their request tied up the telephone system and impaired their service, and we had to discontinue taking requests entirely. The only requests we get now are by mail.

By Chief Examiner Yost:

Q. You feel that your principal handicap is your lack of full time, your limited time? A. No. Limited time is one of the barriers, but our reception is our greatest
120 one. With the amount of people in the community we serve, and the local proposition, we should have no interference within a radius of 40 or 50 miles; but we have interference within a radius of 6, 8 or 10 miles, especially on the evening program.

Q. You feel that your situation would be improved if you had the same time you now have on a frequency of 560, do you? A. Our reception would be better; but we cannot accommodate the various interests that desire to use our station.

By Mrs. Willebrandt:

Q. In addition to the observation that you have described, that you have made yourself throughout your service territory, revealing interference and cross talk, have you had any complaints of that kind from the public?

A. Oh, a number of complaints. I have even sent letters to the Radio Commission at various times about complaints where people were only six or seven miles away and could not hear the station.

Q. Have those been constant complaints over the past year? A. Yes, they are.

Chief Examiner Yost: Have you ever had an application in for another frequency and additional time since you were allotted this frequency?

The Witness: No, we have not.

By Mrs. Willebrandt:

Q. In explanation of that, Mr. Johnson, what is the genesis of this present application we are having
121 a hearing on now? You applied for what frequency first? A. 610. Very near a year. Later it was amended to 560.

Q. So that your dissatisfaction with the kind of reception you can give in your proper service area has been longer than a matter of a few months? A. Oh, ever since 1928. I have taken it up with the Commission at various times and asked them to see what they could do; but as far as filing an application, they promised that they would try to arrange something for us to give us some better reception, but they have never done it. I have been down here at various times and we have done everything we possibly could to try to see if the Commission could work out something for us. Practically since 1928 we have been appealing and begging for assistance in various letters that we have written in here, in imploring the commissioner of our district to see if he could not find some way to remedy this difficulty.

Q. Is there any other station that can be heard in Gary that does render any of the same kind of service that you have described here? A. There is no station that covers our territory that renders the kind of programs we have. Some of the stations in Chicago put on a children's program, but they select the children to put on the
122 program, and it is of short duration, while our programs—we have the children themselves and give them a part and then instruct them and also get the teachers of music in the various schools; both the parochial

schools, the Sisters in the various parochial schools, to assist in trying to educate the children so as to make them perfect in their music, and the child learns the songs of the school and things of that kind, and then is required to learn new songs about every two weeks.

The population in our service area is largely clustered around the steel mills.

Their interests are local and centralized. They have their own peculiar form and mode of living and habits. Practically everybody knows each other and they mingle together in their work and also in their neighborhood.

Q. Do you give any service with respect to ore and the peculiar conditions that enter into most of these people's life? A. We give the time signals and weather reports, and give the arrival and departure of vessels carrying ore to the steel mills, and the departure of vessels carrying material out. The arrival and departure of vessels for the steel mills has been very helpful to the unemployed, because the mill vessels come in and they know there is extra work and more men to be employed during that period, and they have a great number of applications for extra labor.

123 The steel mills themselves sponsor a safety program which has been — existence ever since the station has been in operation, and that is the safety program that is put on by the safety inspector of the steel mills. He gives safety talks, not only with regard to safety in the mills, but taking up all the various forms of safety, especially for the pedestrian, the traveler and children.

Then at various hours on the early morning program we have advice to children, before going to school, to guard against accidents. We get this information from the Chicago Motor Club, showing the great number of children injured.

Q. What police department cooperation do you render peculiar to your community? A. There is a standing order with the police department to use the station at any time. In 1929 we equipped 21 of the police cars with radios to be used, at our own expense, and they were very, very effective during the time of our operation, but on account of having to sign off at various times it loses its efficiency. But during the time we were on they were very successful in apprehending and recovering stolen cars. The Tivoli

Theater at one time was held up and a large sum of money taken from it. It was reported to us, and we interrupted our program, which we do any time a police call comes in, and in less than five minutes the police were on the scene and the robbers were caught within a distance of six miles, and all the money was recovered.

With reference to another robbery recently we put that on the air, and while some of the boys went flying in a car, we were able to capture the boys that were in the
124 car who intended to leave town.

We also report through the police department at various times children who have been lost and they cannot tell where they live. That is broadcast and we notify the parents over the air as to the lost child. When children are lost we put that fact on the air and we have been very successful in that line.

Q. Will you briefly describe your religious broadcasts? A. In addition to the bands I have spoken about, we have the 113th Infantry Band, an ex-soldiers' band, and the Elks' Band.

On the program feature there is a standing invitation to every fraternal and religious organization in the Calumet region to use the facilities of our station. This is not only extended every Sunday, but we have addressed letters to all of the religious organizations. At no time have we ever refused the facilities of our station for religious and fraternal organizations.

We put on annual drives for the Red Cross, Salvation Army, United Charities, Christmas Basket Fund, and poor children. Christmas of 1929 all the various clubs in the community, including the Gary Post-Tribune newspaper there, put on a drive for the Salvation Army.
125 We have no community chest. Everything is individual there.

That was the only time they all combined for the purpose of the Salvation Army. Since that at various times each one puts on its own drive.

The National Women's Professional Club of over 100,000 members use the station for the purpose of entertainment and educational features, as far as their members are concerned.

In 1930 we put on a Milk Fund drive. We secured sufficient money to purchase milk for the poor people of the

community. This money was turned over to the civic authorities and they purchased tickets and are still using some of those tickets.

At Christmas in 1929 we put on a drive for the poor children. We were able to provide 2,500 children with dinner, candy and toys, and also by a special arrangement with the theater they were our guests at a theater party.

During Christmas of 1930 we put on a drive for a Christmas basket fund. We secured several thousand garments and loads of provisions, and these were turned over to the various charitable organizations for distribution. We did none of the distributing ourselves.

Every night at 11 o'clock we put on the Elks' Toast from the lodge room of the Elks' Building. They have beautiful chimes there, and the various towns in and around Gary, principally in the Calumet district, tune in on their radio and hear the Elks' Toast broadcast.
126 We are the only station in the United States who puts on a regular feature of this kind. There is one station lately that puts on the Elks' Toast, but that is once a week.

For the past three years we have put on a Radio Chapel Hour, at 12 o'clock every day. This chapel is conducted by the ministers. All the various ministers are invited, and each day there is a different minister. They give the thought for the day. It consists of a short talk and sacred music; devotional program without relation to denomination.

Q. What do you use your Sunday hours for? A. The entire Sunday from early morning until we close at 9 o'clock is used entirely for church services.

Chief Examiner Yost: Do you have all the Sunday hours?

The Witness: No. We have got practically the same as week days. We have not the early morning hours. We start at 10 o'clock instead of 11. We start at 10 o'clock with the Central Baptist Church. They have over a thousand members in their congregation. That is a regular feature and has been for the past two and a half years.

Then at 1 o'clock we have The Bread of Life, and to 4 o'clock every Sunday we have the various churches who have their half hour programs, covering about all the

churches of the community who want to participate in that. We have even had churches come from outside of Gary, from South Chicago, and they have used our facili-
127 ties for that purpose.

In the evening we have the Presbyterian Church. That has been a regular feature. And then we have the services put on by the Judge Gary-Bishop Aldering Settlement House. This house was built by the steel mills in honor of Judge Gary who then was the head of the United States Steel Corporation, and a Methodist, and named for Judge Gary and Bishop Aldering who was the Bishop of that diocese. It is not a parish house, but it is devoted entirely to the poor. At the present time Father Costello operates it. He has about 51 families in his little parish and he is charged with the duty of educating the children who attend the Catholic schools. He provides fees and gives food to the neighborhood there, 2500 to 3,000 people, irrespective of color, race or religion—anybody. It is a charity center, and it is a charity center that is recognized by the steel industry for the poor people of that community.

By Chief Examiner Yost:

Q. How extensive is this Calumet district that you speak of? A. Calumet district proper runs from the other side of Michigan City down probably about a distance of 35 miles and then into Indiana and a small portion of South Chicago.

Q. In what part of that district is Gary located? A. Practically in the center.

Q. Did you state the population of that district approximately? A. There are approximately without figuring any portion of South Chicago or anything in Illinois
128 at all, about a million people in there. Of course if we take in South Chicago it would run a great deal more than that. I figured the population from the census of the various towns in the State of Indiana.

There are a great number of small towns. It is one town right after another. Taking the Indiana line, you have Whiting, East Chicago, Indiana Harbor, and all in around Gary, such as Hobart; a great number of towns.

By Mrs. Willebrandt:

Q. Would you mind identifying what you meant when you said "the other side of Michigan City"? A. Here is Michigan City (indicating on map). It practically takes in La Porte, Porter, Lake County, and a part of Jasper County, and then around Hammond and around South Chicago. That is considered the Calumet region, in here (indicating on map), as slightly east of Hammond, around the lake and the south, the other side of Michigan City and in through La Porte.

By Chief Examiner Yost:

Q. How far is Gary from the Indiana-Illinois
129 state line? A. It is about 22 miles by road. We have East Gary, West Gary, South Gary, Miller and all those points right in there. They are all part of that Calumet region.

By Mrs. Willebrandt:

Q. Going back again to your answer about your use of Sunday exclusively for religious broadcasting? A. During the baseball season there is an hour that we have no service on at that time; but the churches that are unable to get on on Sunday afternoon, if they want to we give them time in the evening, so as to have their weekly service at some time or another during the week.

By Chief Examiner Yost:

Q. All your service area, present, prospective and proposed, is within the State of Indiana. You have no desire to serve anybody outside of the State of Indiana, have you? A. No, sir. We want to serve this local proposition, serving our community down in there. Chicago has enough service of their own. We want to serve in our own area.

Q. That is an opinion. We want facts. We will determine that by the evidence. A. You see, on account of the peculiar construction of our mills, that has a whole lot to do, I presume, with our situation. Our programs are carried to the Gary Steel Mills, local and civic interests in and around Gary.

130 Chief Examiner Yost: The Examiner will be glad to have some testimony bearing upon the relation of

the population outside of Gary. What connection is there of the people outside of Gary with the mills and with the interests in Gary?

The Witness: All through Whiting, Indiana Harbor, East Chicago and practically all of the towns of that community outside of the Gary mills, there are other independent mills in that community, like the Jones-Laughlin, the American Steel and Wire Company. It is all a mill district, all bordering on the lake. They have facilities for bringing in their provisions by boat, and they all have their docks that circle right around the lake. From South Chicago down it is just one string of mills that are not affiliated or connected or subsidiary corporations of the United States steel mills whatsoever.

Q. Outside of Gary they have their own schools. Inside the city the schools are made up of pupils from the homes of people within the city of Gary, are they not? A. Yes, in Gary proper. Each one of those towns has their own school system just the same as Gary, Hammond, Whiting, East Chicago, Valparaiso and all those towns.

Q. What responsibilities are upon you to serve the towns outside of Gary which have separate schools? Do you have any talent from any of those schools? A. Yes, indeed. We have for various towns in the Calumet region what is known as the community programs. We have
131 the Lake Shore, Indiana Harbor, Whiting, Michigan City, East Chicago, Valparaiso, East and West Gary—every town in that community has a community program, and they are presented by the people of their community over our station; and we have the cooperation of all of the civic authorities of their communities, and they put on community programs. They have a speaker tell the advantages of their town, and so on, and their people put on that program. So we cooperate in that way. They have a teacher or superintendent of schools come over there and talk for the information of their people. Those programs are put on regularly.

Q. All those towns are without broadcasting stations? A. There is only one town there that has a broadcasting station, and that is Hammond, about 18 miles.

By Mrs. Willebrandt:

Q. Is there a steel mill interest, in addition to those you have described in Gary, in South Chicago? A. Yes. The Chicago Steel Mill is a subsidiary of the United States Steel Mills, and there is quite a population there which I have referred to as the outlying class, embraced
132 within what I have referred to as the Calumet region.

Q. Is there any station in Chicago that is giving the same kind of programs of interest to South Chicago? A. There is no station in Chicago giving the same kind of service that we are, for the benefit of the people of our district. There is a local station in Hammond.

They have a studio in Chicago, and most of their broadcasting is done from Chicago. It is more of a commercial proposition.

We have every week a feature known as Good Citizenship. The judges of all the various courts of the entire Calumet region, and frequently lawyers, give talks on good citizenship, what to do, respect for law, and various things of that kind. That is a program feature and we select judges for that purpose.

During the income tax period, for about two weeks before the filing of income tax returns, the collector of revenue comes there and explains in talks how to fill out income tax returns, and so on, for the benefit of the people. That is another educational feature we have.

Chief Examiner Yost: The Calumet district is all in the State of Indiana, is it?

The Witness: A small portion of it would be in South Chicago. It runs probably from 85th Street, I think;
133 but when we refer to the Calumet district we refer to Indiana.

By Mrs. Willebrandt:

Q. Do you operate this station for profit? A. We have never. None of our officers have ever received any salary, and every dollar that is taken in is used for salaries of employees or talent or what not. We have never taken a dollar in for profit. We feel we have been amply paid if we have done good for the community.

By Chief Examiner Yost:

Q. Is it financed by the sale of time over the station? A. A small portion of it is.

Q. Have you any other source of income? A. From our own funds.

Q. What do you mean? A. Personal funds.

Q. Personal funds of the station owners? A. Yes.

Q. Is this a corporation? A. Yes; it is a corporation.

Q. What is the capital stock? A. $30,000, $20,000 common and $10,000 preferred. We never sold a share of stock to anybody.

Q. What is your annual operating cost, approximately? A. That is pretty hard to tell. I couldn't tell without the books. Our talent runs about probably $300 a week.
134 The total expense for help and so on is about $700; and then the equipment. I would say that the entire cost of operation was in the neighborhood of—it is pretty hard to say—$30,000 or $40,000 a year. We have no rent to pay. It is our own property, and a number of our own employees actively participate in the running of the station.

Q. Has this corporation any other business than that of broadcasting? A. The individuals of the corporation?

Q. Yes. What is the business? A. I am in the real estate business. I am a lawyer and have been for thirty years. Mrs. Johnson is on the stage and has been on the stage for 25 years. My son is Assistant States Attorney of Chicago; and that is our business.

Q. You hold all the stock? A. Mrs. Johnson and my son, until recently. I sold some stock to Mr. Atlass. There is no one else. They are the only three now that own any stock.

Q. To what extent, if any, is the station used in promoting your own business? A. We have no business to promote there. We announce a place of amusement there, Gay Mill Ball Room. The only thing we do is to announce that our transmitter is in the Gay Mill Ball Room. That is taken from Gary and Miller. Our transmitter is in Miller and that is an older town than Gary, and that was annexed by the city of Gary, and we got the name that way—Gay Mill.

Q. Do you occupy time over the station yourself?
135 A. None whatsoever. We occupy time in putting on entertainment and things of that kind. Mrs. Johnson has a feature on there that is an entertaining feature.

By Mrs. Willebrandt:

Q. Does the corporation owe any debts? A. Not a dollar.

Cross-examination on behalf of WIBO.

By Mr. Boyd:

Q. How many employees, Mr. Johnson, does the Johnson-Kennedy Radio Corporation have connected with the station? A. They vary. We have fifteen to twenty-five.

Q. Will you please state the names of those employees? A. Wendell Gunther. He is an engineer.

Stanley Herman, engineer; Harry Mayer has charge of the transmitting room and the studio out near the transmitting room. We have a janitor there and his wife. One of our engineers sleeps on the premises. We have announcers—Ted Sherdman, Mr. Jones, Mr. Morrow,
136 the announcers. Mr. Cohen is studio director; Francis Hayes, continuity, and two girls, Miss Sherman and Miss Walker. The telephone operator—Miss Sheehan; Clifford Downey, announcer of the early programs; and we have three or four commercial men, three of whom receive salaries; Clifford Downey, Mr. Elmshaw; and then at various times we have other men there. There is another employee up at the studio. Then there is an assistant who has charge, along with the announcer, of the baseball when we broadcast baseball direct from the White Sox field.

Q. Who are the present owners of the Johnson-Kennedy Radio Corporation? A. Myself, Frances Kennedy Johnson, and Mr. Ralph Atlass, Mrs. Johnson and I practically owning half and Mr. Atlass half, fifty per cent.

Q. You do actually now own 50 per cent? A.
137 All three combined.

Q. When was this transfer made? A. About two months ago or three months ago.

Q. What were the considerations for the transfer? A. I don't know that that is pertinent to this matter here, the amount of money that was paid. I am willing to tell the Commission or the Examiner, but I don't think that is pertinent to this particular thing.

Mr. Boyd: I would like to have an answer to my question, Mr. Examiner.

The Witness: It is a matter entirely outside of the hearing.

Chief Examiner Yost: The Commission has a right to know of the financial ability and financial resources of an applicant.

The Witness: I am perfectly willing to tell our financial ability to maintain the station.

We are estimated, ourselves, in property, there, in the neighborhood of $900,000 of actual property value, right in that locality. We have, in addition to that, in the neighborhood of $65,000 in mortgages and contracts of land that has been sold on monthly payments, and so on. We have no objection to telling that.

138 By Mr. Boyd:

Q. Under the terms of your sale of radio station WJKS and the stock to Mr. Atlass, were there any conditions or contingencies involved in that sale? A.
139 None whatever, outside of the fact that he had certain Western Electric equipment and things of that kind that he was furnishing to the station free of charge.

Q. Did the transfer of the stock involve any question regarding the transfer or the attempted transfer of the wave length? A. No. That was never considered. Our application was filed long before Mr. Atlass ever purchased the stock.

Q. When was this application for a frequency of 560 kilocyles filed by you? A. The first application was filed, I think, in October, unless I am mistaken, and then afterwards it was changed by letter or wire to 560. I would not attempt to state the dates.

We were not negotiating the sale of this stock to Mr. Atlass at the time of that application. This negotiation first commenced in the early part of January of this year, and was consummated about that same time, or the latter

part. The reason I came to file the application, the last time I was down to the Commission some time in July or August of 1930 I was then complaining about that, and the Commission then told me that under this General Order 102 if we wanted to change the wave we would have to select a wave length in a state that was over quota. I cited the condition of Indiana and they said we would
140 have to select a wave length of some station in a state that was over quota if we wanted to change our wave length.

Q. When did you actually make application for the 560 frequency?

Mrs. Willebrandt: The record shows, February 16, 1931.

By Mr. Boyd:

Q. As a matter of fact, the application for frequency 560 was not made until after you had disposed of this stock to Mr. Atlass, was it? A. The stock, I think was transferred the latter part of March—that was it—to take effect on the first of April. We changed our application for frequency prior to that time, I think, some time in February.

Q. Who are now the officers of the Johnson-Kennedy Radio Corporation? A. I am president, Mr. Atlass
141 is treasurer and general manager. Mrs. Johnson is vice-president.

Q. Where is the transmitter located? A. The transmitter is in the town of Gary, the 10th Ward of Gary. It is a suburb, although an older town than Gary is.

Q. Why was that location selected for your transmitter? A. Because we owned the property. And then, of course, the location, the ideal location, nearness to the lake, and the condition of the soil that they tell me technically is a good thing.

Q. Were engineering principles a primary consideration in the location? A. I presume so, because Mr. Clossing is the man who originally designed our station. He furnished the material, and so on.

Q. Did he make any examination of the location
142 of the towers? A. Yes. I had engineers there.

Q. Has a field strength survey been made of the signals of WJKS? A. You are asking me something that

I don't know anything about. I am not an electrician or an engineer, and so I couldn't answer that question.

Q. You did testify that you knew that the signal strength of this station was impaired in certain directions in and about Gary? A. I said we had interference. Whether that is what you call signal strength or not I don't know.

Q. You made no explanation about the signal strength of this station? A. I don't know anything about that. I don't know what you mean by signal strength.

Q. Do you mean that you don't know what that means, after having broadcast for three years? A. I say, technically, I am not an engineer and I am not an electrician.

143 By Mr. Boyd:

Q. I would like to know how you found the interference you speak of. A. By listening in on the radio.

144 That is the only way I could find out. I know that a couple of times I heard the call letters of the Syracuse station, and then I heard a lot of cross fire or cross talk, rather, and whistles, and I couldn't tell just what stations they were. But in driving around I find from the location, the direction that I was from the station, the actual interference would be from over to the east of the station and south and southwest of the station. A. Technically I have no knowledge. All I know is that there is interference. I know that our programs are interrupted and I know we have had complaints.

Q. How far is your transmitter from the principal steel mills of the city of Gary or the region around Gary? A. About three miles to the east of the buildings, the construction of the steel mills, the buildings themselves.

Q. And there are no steel mills south of your station in the immediate vicinity? A. Not due south, but on the

145-147 southwest there are a few steel mills in a southwesterly direction there, probably four or five miles, of large size.

148 Q. Did you have any agreement with Mr. Atlass, or any other person who negotiated the sale, that if he purchased the stock in the station, an effort would be made to change the frequency? A. I have known Mr. Atlass for a year. I have consulted with him, and everybody else familiar with radio—General Saltzman here, and Mr.

Pickford, the ex-Commissioner, about getting a different wave length. I have consulted the head of the Culver University, and everybody else, to see what was causing the interference, and so forth. But, so far as any agreement with him prior to that is concerned, as I say, I have known Mr. Atlass for a year or more, but so far as any agreement is concerned, there was none. The Radio Commission told me that if I wanted to get a different wave length, I would have to make application for it.

149 & 150 Q. Was Mr. Atlass responsible for the application which has been made here? A. Not any more than anyone else—advice, that is all. The reason I selected this wave length is because I feel that the station you represent, and other stations serving our District, put out nothing but chain programs. There are nothing but chain programs, and you can turn to any place on the dial and get chain programs, and get the same programs from various other cities.

151 Q. Do you maintain a station log? A. At all times.

Q. That record is a complete record of the service of the station while on the air? A. I presume so. I did not keep it myself.

A. I have looked at it at various times, and then I have daily reports as to the programs that I presented. They send me a copy of the programs.

152 Q. Do you broadcast over WJKS the Gay Mill ballroom, or any information regarding the Gay Mill ballroom? A. We broadcast the band as they play there during the summer time. The Gay Mill ballroom is run practically only three months in the year. We announce that the bands are coming direct from the Gay Mill ballroom. We have probably two announcements every half-hour, or an announcement every 15 minutes, announcing our call letters, and announcing that the bands are play-

153 ing from the Gay Mill ballroom. When the programs are not originated in the Gay Mill ballrooms, we sometimes make a statement that dances will be conducted at the Gay Mill ballroom, and otherwise advertise the Gay Mill ballroom. It is a ballroom-restaurant, and we have a number of cottages in and around the grounds.

By Chief Examiner Yost:

Q. Where is it located? A. It is located in Gary, on our own property, about two blocks from the lake, and about three miles from the center of Gary.

154 Q. With reference to the charity drive that you mention as having taken place during the Christmas season of 1930, do you know what the results of that drive were in the way of money contributed by the contributors? A. The money was very, very small. I think it was probably a couple of hundred dollars. We made an appeal for clothes and provisions.

155 Q. You said there were thousands of people that were provided with clothing as a result of this effort. A. No, I did not. I said we collected thousands of garments and considerable food.

By Chief Examiner Yost:

Q. Do you refer to that particular time, or the period covering that one drive? A. Just that one drive of 1930.

By Mr. Boyd:

Q. Who made the distribution of the funds? A. We gave the funds to the various charitable organizations.

Q. What charitable organizations? A. Judge Gary's Settlement House; the Central Baptist Church; the Police Department; the Colored Church; and one or two others.

Q. To whom was the food distributed, and by whom? A. We had a storeroom in a vacant store alongside the studio, and the food was in there, and we sent information to the various charitable organizations and they came and took the food and clothing from there, and they in turn distributed it, and a great amount of clothing was given to the various schools for use in their sewing rooms to be made over by the people who were working in that drive.

Q. Will you tell me, please, the names of the judges who made talks on citizenship? A. They were all

156 invited—Judge Wrigley, Judge Smith and Judge Greenwall. They have talked, and then there have been various lawyers and others. I don't remember the names. This is a regular weekly feature. We conduct it ourselves, and invite judges of local courts to appear. It

occurs quite often. Generally the man has a subject that he talks two or three times upon.

Q. Is this station operated for profit? A. No, sir. We have never made any profit on the station. We want it for a community proposition. We want to serve our community.

Q. What benefits go to the dance hall by reason of the broadcasts in which you mention the Gay Mill ballroom? A. I don't think there is very much benefit that comes from making the announcements with respect to the Gay
157 Mill ballroom. We do not figure that the attendance is not thereby increased.

Q. When you conduct contests and give away perfumes and clothing to the people who come, the ladies who attend, do you make those announcements over the air? A. We have not had any contests of that kind in over a year. Sometimes we have. We run our ballroom as a very legitimate proposition. We have the local people there attending.

Q. If there is not enough money coming in commercially to operate the station, does the Gay Mill ballroom contribute to the operation of WJKS? A. We figure part of the entertainment, such as bands and things of that kind—a portion of that is charged up for the radio, because we are furnishing entertainment, and we take a portion of the expense of that for the purpose of radio. We charge up a certain portion of the bands for the entertainment.
158 Q. Do you regard this station, from your viewpoint, as an eleemosynary institution? A. Well, no.

Q. Just why is it operated, if it does not make money, and you do not want to make any money? Is it purely a civic proposition? A. I am very glad you asked me that. I was born and raised in Chicago, and went down to Gary, Indiana, and purchased some property, and through the improvements in property, and so forth, made considerable money; and I feel that I owe it to the community. They have been very, very nice in assisting. We have a community down there that at any time will do anything they can to help us out.

Q. Do you think that the same motives that actuate you in the operation of the station actuated Mr. Atlass in purchasing the stock of the Johnson Kennedy Company? A. I know Mr. Atlass told me a year ago, when we were

talking, that we had a great opportunity there as a community proposition, and our ideas have not differed in any discussion I have ever had with him.

159-162 Q. You stated that the station is used strictly for religious purposes on Sundays? A. Up until the time of the end of the church services, which are usually about 8:30 to 9 o'clock.

Q. In the evening? A. Yes.

Q. Do you conduct marathon dances and broadcast during that period, at any time on Sunday? A. No. Our dances do not start until 8 o'clock on Sundays, or probably 8:30. The church services are on then.

Q. I have reference to marathon dances. A. We had a marathon dance in the Gay Mill ballroom for about six weeks.

163 Cross-examination on behalf of WPCC.

By Mr. Clifford:

Q. Mr. Johnson, you are operating this station, I take it, as a philanthropist, are you? A. I would not say a philanthropist.

Q. Didn't you say you operated this station for the benefit of the community, because you had gone from Chicago to Gary, and had bought property and made money, and you were doing it for the community? A. I owe a whole lot to Gary.

Q. Then, is it not true that you are operating it as a philanthropist for the benefit of the Gary people? A. No, not of the Gary people; the benefit of the community.

Q. You said you organized this corporation for $30,000, $10,000 preferred stock and $20,000 common stock, fully paid in cash, is that right? A. Yes.

Q. And that you have passed over, now, 50 per cent of that stock to Mr. Atlass. Have you any arrangement or agreement with Mr. Atlass that you will continue to operate this station for the benefit of the community of Gary, or has Mr. Atlass agreed with you that you can continue to operate this station without profit? A. With our local programs, you mean? A. The local programs will continue just the same. There will be no change whatsoever.

Q. The Examiner is to understand, is he, that you
164 are operating this station for the benefit of the community of Gary, without profit, and although you

have passed over 50 per cent of the ownership to Mr. Atlass, it is your intention to operate this station for the benefit of the community of Gary, without profit, and you will continue to do so? A. If we can make a profit without injuring the community, we will make a profit.

165 Q. It is your intention, in the future, to operate it as it has been operated in the past, although you have sold a half interest in it? A. To give the community the same type of programs we have been doing, and better programs, if we can do it.

Q. Have you been selling time on the air? A. Yes; to various merchants in the town. We have no spon-

166 sored programs; we have announcements.

Q. You are basing your request for more favorable frequency, are you not, on the ground of the present local programs applicable to the people in Gary? A. No; the entire community which we serve. We probably would take in South Chicago, the steel district.

Q. That is served now by the 21 stations in

167 & 168 Chicago? A. There is no station in Chicago that is serving the South Chicago District with the same class of programs that we are.

Q. Then, basing your application on those grounds, now that you have parted with half of your stock to Mr. Atlass, do you want to have the Commission infer, or are you going to guarantee to the Commission, that you will perpetuate this program which you have been using as a basis for the Commission to grant your application—these foreign language programs, and so forth?

169 Q. You spoke about 60 different nationalities among the residents of Gary, did you not? A. About 56 foreign nationalities.

Q. What proportion of those people speak and understand English? A. A great number of them.

Q. What proportion would you say? A. I would say half of them; probably more than that. That is only a guess on my part.

Q. Then half of them would get all the programs that are put out in English, would they not? A. Yes. By speaking English, I am referring to understanding English. Probably they could not speak English fluently.

Q. They would understand English over the radio, would they not? A. I presume so.

Q. And yet you say you broadcast programs during one week here in ten different languages, is that right? A. Yes.

Q. What about the other 46 nationalities that did not get your programs? A. They do not put on their programs. The facilities are there for them to use.

By Chief Examiner Yost:

Q. What is the average length of these foreign language programs? A. From half an hour to an hour. We divide them up in the daytime and night-time, and try to
170-172 alternate. It depends on the talent they bring in.

173 Chief Examiner Yost: The important matter, from the standpoint of the applicant station, as the Examiner sees it, in addition to what has been put on, is the particular use he proposes to make of this additional time if his application is granted. Is he going to enlarge his program, or extend the same program, or has he something else in mind with reference to the additional time for which he is applying?

The Witness: Our policy is to get full time, to give all the people of that community an opportunity to put on their programs. A great number of these organizations have been denied the privilege of using the station.

Chief Examiner Yost: Is the Examiner to understand, then, that the character of the program would be very much the same, and that it would be just an extension of the programs you have?

The Witness: And a greater accommodation for our people. A great number of people would like to use our facilities, and we have even had some churches from South Chicago come in and use the station. The Lane Technical High School and the Carter-Harrison School drove down in buses to broadcast their program. We want to increase our programs.

174 Q. If you were granted full time, how would you use your Sunday hours? A. We have absolutely no commercial time on Sundays, and the policy would not be changed, except to give more service to the religious interests.

Q. Do you have demands for more time than you can give? A. We have demands to fill up every half-hour and

every fifteen minutes of the day if we are given full time. From the locality; from our community; from the various towns, for community programs. Instead of being able to put those community programs on once in two weeks or so, we could put them on oftener so as to accommodate more people.

Q. Do you have those definite demands—confining my question to Sundays—for either religious or devo-
175 tional broadcasts? A. All during the week.

Q. So far as your educational broadcasts are concerned, to which you have previously referred, do you have demands for more of the children's hour broadcasts? A. We have a great deal of demand, not only from the parents and the community, but from the schools; the principals and the teachers; the assistant superintendents, and the band instructors of the various schools, practically for the last year and a half, and they have been increasing.

Q. You have made some computations concerning the stations in Indiana and Illinois. What is the total number of stations in Illinois? A. Illinois has 37 stations employing 212,460 watts, of which Chicago has 21, with a total wattage of 195,000. Outside of Chicago, there are 16 stations with a wattage of 16,000 watts. Chicago has 11 stations with 5,000 watts or more.

176 Mrs. Willebrandt:

Q. How many stations has Chicago with 5,000 watts or more? A. 11 stations.

177 By Mrs. Willebrandt:

Q. How many stations has Chicago each of which has more power than the whole total of Indiana? A. There are five stations in Chicago, each of which has more power than the entire state of Indiana.

Q. How many clear-channel stations has Chicago?
178 A. Four; Indiana has none.

By Mrs. Willebrandt:

Q. Approximately what population has Indiana, in comparison to Chicago? A. Indiana has practically the same population as Chicago.

Q. How many stations has Indiana? A. 15, with a total wattage of 14,700.

Q. Give the list of the number of stations and the power of each, in Indiana. A. One station of 10,000 watts; two stations of 1,000 watts; four stations of 500 watts; six stations of 100 watts; and two stations of 50 watts.

179 By Mrs. Willebrandt:

Q. Some reference has been made to the association of Mr. Atlass with your station. Had you consulted with Mr. Atlass concerning your station, and had you had conversations with him about that matter prior to his actual association with the station? A. Over a year ago. Mr. Atlass and I have been friends for a long time. I asked him, as a radio man, to try to see what could be done to relieve the interference we have had ever since we have been assigned to this frequency.

Further cross-examination on behalf of WIBO.

By Mr. Cooke:

Q. Mr. Johnson, your view is that Indiana has less than a proper accommodation under the quota? A. The
180 records of the Federal Radio Commission say so. Indiana is the most under-quota state in the Union.

Q. You are within 20 miles, you testified, of the Illinois border? A. Yes.

Q. You would like to reach over even into Michigan, would you not, if you could? A. No.

Q. You are in the Northwest corner of Indiana? A. About 20 miles from the line.

Q. And you are on the lake shore? A. Yes.

Q. The extreme northern part of Indiana? A. Yes.

Q. Do you think it would benefit the position of Indiana if its quota were elevated by what you are now seeking, in a general way, for the convenience of the entire State? A. Yes, it would.

Q. A great part of your broadcasting would go over into Illinois, would it not? A. No.

Q. Would any of it? A. I could not tell. It would probably go into South Chicago.

181 By Mr. Cooke:

Q. If you succeed in this application, does it not add to the burden of the quota in Indiana? A. No.

Chief Examiner Yost: It increases the quota, certainly.

The Witness: It increases the quota about three-sevenths of a point.

182 Cross-examination on behalf of the Commission.

By Mr. Newman:

Q. Mr. Johnson, with regard to the proportion of stock in this corporation owned by yourself and Mr. Atlass, what is the exact figure? A. 50 per cent.

Q. Who owns the remaining 50 per cent, did you say? A. Mrs. Johnson and myself.

Q. What percentage does she own? A. Oh, I don't know. I could not say as to that. I do not know just how many shares she has.

Q. Do you know how many you have? A. The greater portion of our stock is in her name.

Q. You don't know just what proportion you own? A. I would say about 60-40, or something of that kind. We have only one bank account and one pocketbook.

Q. By 60-40, you mean as applied to the remaining 50 per cent? A. Yes.

Q. Which would be the 60 of that, and which would be the 40? A. Mrs. Johnson would be the 60.

183 Q. Does the stock actually show up in your name and her name? A. Yes.

By Mr. Newman:

Q. How did you say that stock was divided, with regard to the amount that was common and the amount that was preferred? A. $10,000 preferred, and $20,000 common.

Q. Which has the voting power? A. The common.

184 Q. In which classification does the stock of Mr. Atlass fall? A. Half of the preferred, and half of the common.

Chief Examiner Yost: Of course, the money that was paid by Mr. Atlass for this stock became the private property of you and Mrs. Johnson, is that right? It did not go into the corporate funds?

The Witness: Some portion of it did.

Chief Examiner Yost: Some portion of it remained in the treasury?

The Witness: Yes.

Chief Examiner Yost: Any question that bears
185 upon the financial ability of the corporation, of course, may be gone into, in connection with the financial ability and resources of this corporation, and the finances of the proposed station if the application is granted.

By Mr. Newman:

Q. How much money do you have in the treasury to the name of the corporation now, Mr. Johnson? A. Approximately $10,000.

186 Q. What hours do you actually broadcast now, Mr. Johnson? A. From 7 to 8:30 in the morning. Speaking of the present time, of course, the hours of broadcasting changed, through an agreement with the
187 other station, about two or three weeks ago. Our schedule now is from 7 to 8:30; from 12:30 to 6 in the evening; from 7:30 to 9 in the evening; and from 10:30 to 12; and then on Monday, Tuesday, Wednesday and Saturday, in addition thereto, from 12 o'clock midnight to 4 o'clock in the morning.

That is the day schedule. After 12 o'clock midnight on Monday, Tuesday, Wednesday and Saturday, we are on the air. We divide the time with the other stations, so that we take those four days, and they take the other three days, Thursday, Friday and Sunday. They take from 12 o'clock midnight until 2 o'clock in the morning. Then we go from 2 o'clock in the morning to 4 o'clock.

188 Q. Does there remain, according to this schedule, any time that either you or your sharing station do not use? A. I do not know, as far as the other station is concerned. I do not think there is any time allotted
189 to them that they do not use.

Q. However, from 4 to 7 in the morning, neither you nor the other station uses the time? A. Only occasionally.

Q. Why is it you do not make use of that time, Mr. Johnson? A. Well, in the first place, on account of our generators, and then, on the very, very late programs, or the

very early programs, you have not as may listeners as you would have from 7 to 9 in the morning, or from 6 to 9 in the morning. Then, of course, we signed an agreement there from 5 on, which is used for tuning purposes, when we do not want any interference. At various times we run a very, very late program, what we call a DX program.

Q. Do you consider your hours of broadcasting between 2 and 4, or between 12 and 4, or between 10:30 and 4, valuable? A. It is valuable to the men getting home from that shift.

Q. 95 per cent of these residents who, you stated, are mill workers, are directly or indirectly connected with the mill work on one of three shifts, which includes the whole day? A. Yes, sir. The mills are the principal industry of that district. If the mills shut down, there are panicky times, stores go out of business, and things of that kind. They are all dependent on that industry, practically, indirectly. I would not say directly, because it all depends on the working man, when it comes right down to that situation.

Q. Mr. Johnson, have you any reason to believe that if you changed to the frequency which you are requesting in this application, you would be better off from the standpoint of interference, either of the cross-talk variety or the heterodyne variety? A. Yes.

Q. On what do you base that? A. On inspection and observation.

There is not a week goes by, probably, that I do not make inspections to see how the programs are coming in.

Q. Have you made any inspections on this frequency which you are requesting in this application? A. Yes. When I get our own station, then I turn on the other stations to see how they are coming in.

Q. Did you make any of these inspections or checks in conjunction with an engineer, Mr. Johnson? A. Our engineer in the station. We have often been around together.

Q. On what do you base the conclusion that the channel which you request will be better for your purposes than the one you now have? A. Because, where we have had reception on our station, at that same time we turn into some of the other Chicago stations and find that they have clear reception. They do not have that interference at the same point; and on the same receiver, on 560 kilocycles.

Q. Of course, the stations to which you were listening then, assigned to 560 kilocycles, were not in the same locality where your transmitter is, were they? A. No.

Q. Mr. Johnson, coming back to the corporation which holds the station license, that corporation exists now primarily for the purpose of owning this radio station? A. Yes.

Q. Has it any other interests, or particular affiliations? A. No. It is a separate corporation entirely.

Q. Your business, I understand, among other things, is that of real estate broker? A. No, not a broker; owning real estate.

Q. Do you own any real estate in the corporate name, or is it personally? A. Just our own individual names.

It is owned by Mrs. Johnson and myself. I might say that the majority of the property is in Mrs. Johnson's name. I might state the reason for that, if you want to know. I do considerable criminal work in Chicago, and I had a happy faculty of signing bonds, and I got stuck for about $15,000 on a bond, and then I transferred the entire property to Mrs. Johnson.

Q. Regarding the amount of money made by your station, how much do you consider, in all, that you have put into it since its inception? A. I suppose we have put in about $50,000 to $60,000.

Q. And you now have in your treasury about $10,000? A. Yes.

Q. You say the stock has never paid any dividends? A. We have never declared any dividends whatsoever.

Q. Have you ever been able to declare any? A. We never looked at it in that way at all. It was held jointly by us, and it did not make any difference about that; when we had new equipment to buy, we purchased it.

Q. The company has not been run strictly as a corporation? A. No, it was not.

Q. The corporation happened to be a convenient name for the licensee? A. No; it was a separate proposition. At the time I did not know very much about radio, when I went into it, and I figured it would be best to have a corporation for that separate proposition. When we conceived the idea of radio, of course, at that

time anybody could get a license. Since that time the rules of the Commission were made.

Q. Does the station owe any money now? A. Not a nickel.

Q. Are the running expenses up to date included in the $56,000 that you have estimated? A. No, because that would include equipment and stuff of that kind.

Chief Examiner Yost: Did the witness say $56,000, or from $50,000 to $60,000?

The Witness: From $50,000 to $60,000.

By Mr. Newman:

Q. I beg your pardon. That $60,000 would not cover all the money that you have put into it to date? A. Oh, no.

Q. What do you consider the present worth of the corporation holding the station to be, approximately,
194 at the present time? A. I suppose about $75,000 or $100,000.

Q. How much of that would be good will in your
195 opinion, Mr. Johnson, or so-called good will? A. About ten or fifteen thousand.

Q. How much would you estimate you have taken in in the course of the station's existence? A. I couldn't estimate that so as to be accurate about it.

Q. What do you estimate your average weekly or monthly income would be? A. I suppose the annual income would run from $30,000 to $40,000, possibly $50,000.

Q. And what would your annual expense be, which you consider to be in the nature of current expense? A. It would be all of that, if not more.

Q. At that rate the station would not be self-supporting, would it? A. No, not from your angle; but we always have been—if we went out after more commercial advertising, that would increase our revenues.

Q. Do you have any commercial accounts in Chicago? A. Occasionally an announcement, like special sales, and things of that kind, from some of the stores.

Q. Within a radius of how far from your transmitter do you have commercial accounts? A. Most all of
196 our accounts are right in our own district, and probably a few stores in South Chicago.

Q. Will you describe a little more in detail just how your announcements are worked out? A. I have an announcement of about 50 words or so. We try to have not over three or four announcements in an hour.

Q. Who pays for the musical numbers? A. The company, the radio station.

Q. Do you charge enough for the announcement to cover the announcing time as well as music? A. We are very fortunate in not having much talent expense. We have so much talent that the expense is very nominal—less than it would be in other localities.

Q. A great proportion of the talent which broadcasts over your station is free talent? A. Yes.

Q. With regard to phonograph records, do you use them very often? A. We probably run—I couldn't exactly tell —probably two or three hours a day.

Q. What hours are they, usually? A. Principally
197 in the morning; sometimes in the afternoon. And then, of course, we have purchase some very nice electrical transcription records.

Q. This additional time that you seek: What use would you make of it? First of all, how many hours would you use? A. We would use it all from early morning. From early morning until late at night, because the civic authorities are very anxious to put on programs especially to give cooperation with the police department and the other towns in the adjoining vicinities have held meetings for the purpose of trying to utilize our station for that purpose.

Q. Would you use these three hours in the morning that you now could use but do not, from 4 until 7? A. We would like to run full time, because we have made application for permission to install Western Electric equipment and put in double generators for the purpose of running full time.

Q. You have stated that phonograph records are not played in conjunction with any spot announcements? A. No; frequently our announcements are in the evening time.

Q. In view of the fact that you are seeking this additional time, could you not replace those three hours of phonograph records with some other sort of pro-
198 gram? A. We use them in the morning.

Q. But would it not serve the same purpose as additional time? A. I don't know whether I understand you or not.

Q. It would tend to serve the purpose of additional time? A. The early morning?

Q. Whenever you use your phonograph records. A. From 4 o'clock in the morning until 6 o'clock?

Q. Whenever you use them. A. We use them along with our calisthenic exercises and the advice to the children and the safety program and things of that type—exercises and time signals.

Q. To your mind, Mr. Johnson, what do you consider for your station would be the most valuable broadcasting hours in the day? A. The entire day and entire night are the most valuable on account of our shift proposition.

Q. Then no one hour in the day is of any more value than another? A. Of course we all know that the evening hours are the most valuable.

Q. Do you not have a pretty fair proportionate share of the evening hours at present? A. As far as our assignment is concerned with the other station?

Q. Yes. A. We have a fair assignment as far as the other station is concerned, but we have not got a
199-201 fair assignment as far as the community necessities require and need.

Q. What was your time when the station first began its operation in 1926, I believe you said it was? A. 1927. We had 50 per cent.

Q. And now you have just a little over 50 per cent? A. Yes.

Q. So you are no worse off than you were when you began, are you? A. I should hope not.

Q. Did you supply the Commission with a financial sheet in reference to the financial status of your company sometime last fall? A. Yes.

202 By Mr. Newman:

Q. Does Mr. Atlass get a salary from this corporation, Mr. Johnson? A. No. That is the only agreement we have got. No one of us gets any salary.

Redirect examination.

203 By Mrs. Willebrandt:

Q. There was a good deal of questioning by the counsel for the Commission relative to your use of the

hours or your non-use, sometimes, of the hours between 4 o'clock in the morning and 7 o'clock in the morning—— A. The reason for that is that the shifts are at 4 o'clock, 12 o'clock and 8 in the morning, the three shifts in Gary, and we tried to accommodate them.

Q. On the nights that you have permission to broadcast, you broadcast what periods? A. From 12 o'clock until 4, and sometimes until 6 in the morning. The reg-
204 ular program is to 4.

Q. You know, as a matter of fact, that the hours between 12 o'clock midnight and 6 a. m. are not counted in the quota, do you not? A. Not as far as the Commission is concerned, but they are counted as far as our station is concerned that we share time with, dividing on four-sevenths time. We take four nights after 12 o'clock and they take three nights.

Q. You always broadcast until 4 o'clock, do you mean? A. Yes; and sometimes until 6. Our regular programs are until 4.

Q. Let us, very briefly and to the point, go through your hours and show where the lapse is. You begin at what time? A. Seven o'clock.

Q. And broadcast until when? A. 8:30.

Chief Examiner Yost: Every day?

The Witness: Every day.

By Mrs. Willebrandt:

Q. From 7 o'clock until 8:30 what kind of broadcasts do you put on? A. Principally records at that time and calisthenic exercises and safety talks that are furnished by the Chicago Motor Club for children, and things of that kind, and advice to children.

Q. As I understand it, you mix your records in with these spot types of programs? A. Yes, and announce time
205 signals every 10 or 15 minutes and tell the children what they have got to do, and things of that kind, principally school features.

Q. You have to go off the air from 8 o'clock until when? A. 8:30 until—WGES comes on at 8:30 and then they broadcast until 12:30.

Q. If you got the time from 8:30 until 12:30, what will you use it for? A. For programs for entertainment of

the people, because that is one of the best times for the entertaining of our people there, especially our housewives.

Q. What specific demand for programs have you had that you propose to put on at that period. A. We had demands from the workers who are relieved from the steel mills at 8 o'clock in the morning. They go home and have their supper when we are eating our breakfast; but there is no entertainment from that time on until 12:30, from our station, for them.

Q. Would you put educational, entertainment, religious or commercial programs in there? A. Education, religious and entertainment.

Q. Would you mix in some commercial? A. If we should get it so as not to overload. I don't believe in overloading a station with commercial things, because we have been very, very cautious about any commercial accounts that we might take.

Q. The purpose of your use of that time would be to make some money, to sell more commercial programs dur-
206 ing that period, or not? A. To put on better programs during that period.

Q. Would it or would it not primarily satisfy the demands to mix in such commercial programs as would carry the load financially? A. It would be for the sole purpose of entertaining and furnishing amusement and educational features to our community and to our listeners. We are already using from 12 until 6. Then we have to go off the air between 6 and 7:30.

Q. How would you use between 6 and 7:30 if you got that time? A. The highest type of entertainment we could secure, of civic, educational and religious.

Q. I will ask you whether that is or is not the most valuable time for the Calumet district. A. A very valuable time for us.

Q. Would you use the commercial programs in that period? A. On the same policy as the others, the same thing. Our desire is to improve for the purpose of our locality.

Q. Then your next lapse on the air at the present time which you are asking to be allowed to use, comes when? A. Nine o'clock at night until 10:30, with the same
207 kind of programs that we are now giving.

Recross-examination on behalf of respondent WIBO.

My Mr. Boyd:

Q. Have you maintained a rate card or schedule of prices that you charge for the service that you render advertisers, during the time that station has been under the ownership and control of the Johnson-Kennedy Radio Corporation, standard to all people for the same service? A. Yes; we have.

Q. Has there been a difference in the prices charged in the morning and in the afternoon? A. Yes. I couldn't tell offhand; but the morning time is less than the evening time is.

Q. Do you have a copy of your schedule of rates
208 with you? A. No; I have not with me.

Q. Do you remember what they were?

Chief Examiner Yost: Perhaps Mr. Atlass can supply that information.

The Witness: He may be able to do so.

By Mr. Boyd:

Q. I would like to know what they were before Mr. Atlass became connected with it. What were the rates before he came there? A. I think they were about the same.

Q. The same now as they were then ? A. I think practically the same now as they were then.

209 Q. Do you have now sponsored programs in the evening? A. We have one or two; not every evening, but occasionally.

Q. Do you recall the names of any of those programs or who the sponsors are? A. No. We had some announcements for Tittle Brothers, a 15-minute program. They are local there; and we had a couple of programs from the dairy company, and lately we have had an announcement from Tanlac, and a couple of 15-minute programs.

Q. Do you call them spot announcements? A. No; that would not be spot announcements.

Q. They are sponsored programs? A. They would be 15-minute programs and some announcements. We have a couple of programs or one program a week for another firm—some medicine; I don't remember what the name of it is. It is 15 minutes a week.

210 Q. You had commercial men employed to make your rate card? A. They were commercial men; yes.

Q. The owners of the station did not fix the rate by which the commercial men sold time? A. Oh, yes. They suggested the proposition. We took the rates of other stations of about the same power, and so on, to see what they charged.

Q. But they were always the same rates for the same periods of time? A. No. There was a difference in the day rate and the night rate.

Q. Yes; but if you sold spot announcements between 11 and 12 a. m., that time was sold at the same rate to all advertisers that used the time? A. Yes.

Cross examination on behalf of respondent WPCC.

By Mr. Clifford:

Q. Why was part of the consideration which Mr. Atlass paid for 50 per cent of the stock which he purchased from your wife and yourself paid into the treasury of the corporation? A. Because we owned the stock ourselves before that. There was no need of having a treasury; but when others come in, then you ought to have a treasury.

211 Q. If you owned the stock, it was yours and your wife's individual property? A. Yes.

Q. You stated a while ago that the stock had been fully paid for? Why was it placed in the treasury of the corporation if the consideration of the stock came to you and your wife, if you owned the stock and the stock had been fully paid? A. Because that is proper business.

Q. How is it proper business? A. To have a treasurer when outsiders are in it.

Q. Of the proportion of the money coming to you for your stock that you put in the treasury, you made a donation to the corporation? A. No, I did not.

Q. Did you owe the corporation money for your stock? A. No.

Q. Did Mrs. Johnson owe money to the corporation? A. No.

212 Q. Why, then, did you give what you received for your own personal property to the corporation? Why did you make the donation? A. How was the cor-

poration going to have money in the treasury unless the stockholders put it in themselves?

Q. When you formed the corporation several years ago the stock was fully paid for? A. Yes.

Q. Therefore the consideration was paid at that time—— A. Do you suppose it remained in the treasury all the time without spending it?

Q. That doesn't answer the question. A. I don't know how you would answer, then.

Chief Examiner Yost: It must be apparent that the money was put into the corporation's treasury for the purpose of taking care of the expenses and having some running capital to operate on.

213 Chief Examiner Yost: Was that the understanding and agreement with Mr. Atlass, that a certain amount should go into the treasury?

The Witness: Mr. Atlass put up an equal amount as I did for the purpose of the corporation.

Q. Three years afterwards you sold part of the stock to Mr. Atlass, and you state that part of the consideration which came to you and your wife for this stock

214-217 you have turned in to the corporation. Why? A. So as to have a treasury there to pay bills and improve the equipment and everything else.

Q. Then you and your wife have made a donation within the last two months to the corporation out of certain proceeds which you received for the sale of the stock which you owned individually? A. The money which I have donated is part of the stockholders' money, and I am back of the stockholders.

Q. But you had paid for it once before, had you not, when it was issued? A. I paid the money in there; yes.

Q. When it was issued, and you received the stock? A. Yes.

Q. Now you have sold the stock and taken part of the money and donated it again to the corporation. A. We have not donated it. We paid it in to the treasury.

218 Additional examination on behalf of the applicant.

By Mrs. Willebrandt:

Q. When you formed this corporation, Mr. Johnson, do you recall how many shares of stock there were issued? A. Two hundred.

Q. Did they have any par value or were they of any par value? A. No par value.

Q. Have you and your wife poured considerable money into this corporation? A. We have, at all times.

Q. Could you estimate how much money you have already put into it? A. Not accurately.

Q. Did you solely buy the equipment or did you have help in buying the equipment?

Chief Examiner Yost: Financial help, you mean?

Mrs. Willebrandt: Yes.

Q. Did you buy the equipment? A. Yes.

Q. You paid for the equipment and you have paid for the running of the station? - A. Paid for building
219-226 the towers and everything else about it.

Q. And deducted from those running expenses whatever income you have had from advertising? A. Yes.

Q. Has it always broken even? A. No.

Q. Have you gone into your pocket from time to time for it? A. Very, very often.

Chief Examiner Yost: The Examiner understood the witness to say, previously, in response to a question by Mr. Newman for the Commission, that he estimated between fifty thousand and sixty thousand dollars had gone into the station. Is that right?

The Witness: That is about a rough estimate for the equipment and things of that kind, outside of running expenses. When bills were to be paid, we paid them.

Mrs. Willebrandt: That is all.

Additional cross-examination on behalf of WIBO.

By Mr. Cook:

Q. Do you keep books, that is, this corporation? A. In the manner in which individuals would keep books.

227 May I inquire of Mr. Johnson for a second?

Chief Examiner Yost: Yes, you may.

By Mr. Cooke:

Q. You stated that the books of this corporation were kept as personal books are kept. Do you keep personal books? A. Yes.

Q. You know how much you have put into the company over a period of years? A. I probably would from the books.

Q. Are there actual books kept by your corpora-
228 tion? A. Receipts and expenses.

Q. In journal and ledger form? A. Yes.

Q. Are they audited? A. No.

Q. Do you keep them yourself? A. Yes.

Q. You can ascertain how much money it has been necessary for you and your wife to advance to this corporation over a period of years to keep it financially sound? A. Yes.

Q. Without your assistance and your wife's assistance the corporation would not have been balanced; it would have had more expense than income; is that true? A. No, it would not. We put the money in there for im-
229 provements and things of that kind, any money we have advanced.

Q. In other words, out of your own pocket, as a stranger to the corporation, hostile to it as a stockholder, you advanced money to it to improve it? A. If it was necessary to do it.

Q. But you have done it to the tune of very large sums, according to your testimony? A. I figure we have spent between $50,000 and $60,000.

Q. Not earned by the corporation? A. The first $30,000 was put in by the stockholders.

Q. That was its capital stock? A. Yes.

Q. And some $30,000 in addition thereto has been advanced to it by you and your wife as stockholders? A. That is practically the figures, and the value of the stock increased that much.

Q. Did you get stock for that gift or contribution? A. No, not as shares of stock.

Q. And the corporation did not earn the money up to $30,000 that you turned over to it? A. Well, I wouldn't say that.

Q. What will you say, Mr. Johnson? A. The corporation itself practically has earned sufficient money with which to pay all of the expenses, the improvements we put in and things of that kind, and the various changes from 500 watts to 1,000——

Q. You say, it has practically earned it? A. I
230 wouldn't say authoritatively, but at no time has the corporation been in financial straits at all.

Q. Because you and your wife were there and stockholders, persons hostile to the corporation as such, were ready to give it money? A. We probably would not have put in the various improvements we have done.

Q. Were the repairs included? A. Some.

Q. Are not repairs cost of operation? A. No; new equipment, changing from 500 to 1,000 watts or 1,250 watts or putting in crystal control and all that.

Q. Suppose you and your wife had not advanced any money to this corporation to assist it, either by giving it money for new improvements or for repairs, would that corporation have earned enough money to keep going? A. It certainly would earn some, because all we had to do was to go out and sell advertising for that purpose, and carry it the same as your station, which is nothing more than a commercial proposition.

The Witness: We did it for the purpose of betterment of the community, the same as a church organization or anything else does, not for the grasping proposition of trying to make money out of something that the Government gives you.

By Chief Examiner Yost:

Q. As the Examiner understands it, notwithstanding your last comment, the money you have invested in it has really not been given to charity, but the station has
231 been improved until you say that now it is worth approximately $75,000? A. It has improved every day. We have put in there constant improvements and we figured it was a good investment.

Q. Therefore it has not been a donation or—— A. At no time. Every improvement we made was a benefit to the station.

232 **Andrew D. Ring**, an engineer employed by the Federal Radio Commission, was called as a witness for and on behalf of the applicant and, being duly sworn, testified as follows:

Direct examination.

By Mrs. Willebrandt:

Q. What is the quota due in Illinois? A. The total quota due Illinois is 22.50.

Q. How many stations are licensed in Illinois? A. Thirty-seven stations.

Q. What is the quota due Indiana? A. The total quota due Indiana is 9.53 units.

Q. How many stations are there in Indiana? A. Sixteen.

233 Q. Is there any state in the entire 4th Zone that is as great a percentage under quota as Indiana? A. Indiana is the greatest percentage under quota of any state of the 4th Zone, being twenty percent under.

Q. Is there a single full-time regional or cleared channel station in Indiana? A. I do not see a full time regional or clear channel station, but there are full time regional assignments to the state.

Q. But there is no one single station in Indiana in any one community having that? A. That is correct, on regional or cleared channels.

Q. So there is broken broadcast in every community in Indiana on cleared channels? A. And regionals.

Q. Referring to the stations in the Chicago area, Mr. Ring, can KYW, a full time station with 10 k. w. power, be expected to serve the same area as WIBO? A. It is presumed it will serve a larger area, including that area served by WIBO.

Q. Does WGN, a full time clear channel station with 25 k. w. power, serve the same area as WIBO? A.

234 Yes.

Q. Does WBBM with 25 k. w. power serve the same area as WIBO? A. Yes.

Q. Does WMAQ, a full time cleared channel station, serve the same area as WIBO? A. Yes.

Q. Does WENR, a 50 k. w. station? A. Yes.

Q. Does WLS, a 50 k. w. station. A. Yes.

Q. Does WCFL, the Federation of Labor station, a regional station with 1500 watts, serve the same area? A. It may be a question whether or not those service areas exactly overlap.

Q. Would they partly overlap? A. In general, yes.

Q. Does WJJD, a 20 k. w. station, serve that same area? A. Yes.

Q. WMBI, a 5 k. w. station? A. Yes.

Q. WCHI, a 5 k. w. station. A. Yes.

Q. WJAZ, a 5 k. w. station? A. Yes.

Q. WGES, a 500 watt station? A. I*n* serves in that same area, possibly not exactly overlapping.

235 Q. Partially overlapping? A. Yes.

Q. In addition to those stations which we have just mentioned, will you say whether WCRW, WEDC, WEHS, WHFC and WSBC provide community service to the communities in Chicago in which they are located. A. Yes. I have those stations charged to the metropolitan area of Chicago.

Q. The service area of WIBO is then duplicated in Chicago by not less than ten other Chicago stations? A. Accepting your count of them, yes.

Q. Do you consider as reasonable the good and excellent service areas to be expected of stations of different powers as expressed by the Federal Radio Commission in the WGY case? Do you think that is a reasonable estimate? A. I really have not made an extended study of those estimates, and so I cannot state.

Q. You are familiar with the estimate given in the WGY case? A. Not at present, I am not.

Q. What would you say is your opinion?

Pardon me. I had assumed that he was qualified as an expert, Mr. Examiner.

Chief Examiner Yost: He satisfies the Examiner, of course.

The Examiner presumes that Mr. Ring's qualifications are admitted, as a radio engineer?

Mr. Cook: Yes.

By Mrs. Willebrandt:

Q. What, in your opinion, is the excellent service
236 area that should be expected of a thousand-watt station? A. I estimate the excellent city service radius of a thousand-watt station to be nine miles.

Chief Examiner Yost: Daytime or night time?

The Witness: Both.

By Mrs. Willebrandt:

Q. What about a hundred-watt station? A. The excellent city service radius, 3 miles.

Mrs. Willebrandt: May I have this map marked for identification?

Chief Examiner Yost: Yes.

Q. Will you look at that map and tell me whether in your opinion there is any Indiana station other than WJKS from which the northern part of Indiana may receive service?

Chief Examiner Yost: The question was, any other Indiana station?

Mrs. Willebrandt: Yes.

A. The stations in northern Indiana are WWAE, WJKS, WRAF, WSBT, WCMA, WGL and WOWO.

By Mrs. Willebrandt:

Q. I will ask whether there are any other stations that serve Lake County or Porter County except WJKS.

237 A. WJAK and WRAF probably serve locally in Lake County and La Porte County.

Q. I did not ask about La Porte County. Lake County and Porter County are the two I meant. A. The local service on local stations is restricted to WWAE and WJKS in those two counties.

By Chief Examiner Yost:

Q. Would those stations serve the citizens of Gary and immediate vicinity, in your opinion? A. A regional station should render service over a radius, as I estimate good service, of nine miles. I would have to make a further study to see what would be included in the nine-mile radius from Station WJKS.

By Mrs. Willebrandt:

Q. May I ask the question in a little different way and ask you whether, in your opinion there is any other station that would render any service in Porter County or Lake County, irrespective of how far WJKS goes, so far as Indiana stations are concerned, except WJKS? A. Fair service may be had in the rural portions of this county from WOWO at Fort Wayne, Indiana. That is a clear channel station operating with a power of 10 k. w.

Q. That would be the very southern part of those counties? A. Those parts in which the man-made interference is not exceptionally great nor the absorption high.

Q. Would you say that that answer would apply to the metropolitan area of Gary or the lake region around the steel mills in Gary? A. The lake region undoubt-
238 edly has both higher interference and higher absorption, so the service would probably be very poor.

Q. Would you therefore say that Fort Wayne would not serve the metropolitan area there? A. Only poor service.

Q. Is the full power of all stations in Indiana as great as any one of the stations WENR, WLS, WGN, WBBM and WJJD of Chicago? A. A rapid inspection of my list indicates that the combined powers of the Indiana stations would not be equivalent to the power of a single one of the stations just mentioned.

Q. You are familiar with this application; you know what this station is asking for, do you not? A. Yes.

Q. Would the granting of this full time frequency to Gary increase the quota of Indiana? A. If the application were granted giving the station full time in place of four sevenths time the quota would be increased.

Q. How much? A. The full time assignment using 1 k. w. would be charged with one unit; four-sevenths time, .55 of a unit, or an increase of .45 of a unit.

Q. Is Illinois over quota? A. Forty-nine per cent, or 11.15 units.

239 Q. If this application were granted and, pursuant to the Commission's General Order No. 102, the corresponding time taken from Illinois, would it decrease the quota assignment in Illinois? A. Yes. The two stations in Illinois that are now licensed to operate on this frequency are charged with .69 units.

Chief Examiner Yost: It would be reduced .69 units?

The Witness: They are now charged with that many units. I do not know what disposition will be made of the station——

Chief Examiner Yost: The question was, how much it would reduce the quota of Illinois if this application were granted.

The Witness: .69 units, providing the station of respondent is deleted.

By Mrs. Willebrandt:

Q. How much time does WIBO use? A. WIBO is charged with .43 of full time.

Q. How much does WPCC use at the present time? A. My records show it charged with .43 of full time; but I think there is an error there, and I reserve the right to correct that.

Q. I was going to ask you if you would let me reframe my question, then, relating to each of these. The information I would like, Mr. Ring, is how much time of the total time that could be used between these two stations do they separately and combinedly use today? And, Mr. Ring, will you make your answer include recent
240 agreements on time and bring it up to date as to their present usage? A. I can only give you the time that the stations are licensed to use. While the additional time that the stations may make use of is known, that is not officially charged to them, and I cannot make any compilation of it.

Q. Could you, if given time to examine the records of the Radio Commission, put in your answer the agreements between the stations and make your answer an accurate statement of the number of hours they are using? A. If an accurate agreement of the time schedule is available, I could do that.

Q. Will you indicate what their licenses show as to time assignments and what their present operation shows as to the use of time? A. I can give you, from a copy of the license before me, how it is now designated. In section 3 of the license dated October 6, 1930, the time is given as follows:

"During the following period of time shares time with WISJ and WIBO. WPCC to operate Sundays from 10 a. m. to 4:30 p. m. and from 6 p. m. to 11:30 p. m., Central Standard Time."

That is from the license of Station WPCC.

The license of Station WIBO dated October 11, 1930, Section 3, states as follows:

241 "During the following periods of time shares time with WPCC and WISJ. WPCC to operate Sundays from 10 a. m. to 4:30 p. m. and from 6 p. m. to 11:30 p. m.

WISJ to operate Sundays 4:30 p. m. to 6 p. m., Mondays 5 to 7 p. m., Tuesdays 5 to 6:30 p. m., Wednesdays 5 to 6:30 p. m., Thursdays 5 to 6 p. m., Fridays 5 to 6 p. m., Saturdays 5 to 7 p. m., Central Standard Time; provided that except on Sundays the above hours shall be understood to relate to daylight saving time at such periods as the City of Chicago observes daylight saving time. WIBO to operate on such hours as not herein designated for the use of WISJ and WPCC."

Q. May I ask you what percentage of time is taken by the combined schedules of WIBO and WPCC of the 18 hours between 6 a. m. and 12 midnight? A. Is that to be determined from this license or from the schedule they are now observing?

Q. From the schedule. Could you supply that? A. I do not have the schedule that they are now using before me, and accordingly that is dependent upon procurement of that schedule.

242-246 By Mrs. Willebrandt:

Q. Would the effect of the granting of this application, Mr. Ring, be to bring Indiana somewhat closer to the number of quota units assigned by the Commission and to reduce Illinois somewhat closer to the number of quota units assigned by the Commission? A. Yes.

Q. In other words, it would be in the direction of equalization? A. Yes.

247 By Mrs. Willebrandt:

Q. I understood you to say that the State of Indiana was under quota 20 per cent. Did you not mean 35 per cent? I am referring in asking that question to the Federal

248 Radio Commission's tabulation of January 6, 1931.

A. My tabulation of the quota is kept up to date and shows Indiana to be under quota by 1.95 units, or 20 percent.

Q. Has it changed? I am showing you here the Federal Radio Commission's letter of January 6, which is the last that the public has had. If there is a discrepancy, will you explain it? A. My list is corrected until April 13, 1931. I presume further facilities have been assigned to

states since the list made up as shown me of January 6, 1931, was filed. I do not have before me what those facilities added were, but I can find out if it is desired.

249 Chief Examiner Yost: The only purpose, the Examiner presumes, is in order to be certain that it is correct, inasmuch as there is such a variance between the present figures and those of January.

Mrs. Willebrandt: In these various records dealing with the quotas it is very difficult to ascertain and, I think, as yet it has not been determined at what period the applicant is held to the quota status in preparing and presenting his proof, whether it be the date of the presentation of the known and published quota status of a state at the date of the application, or whether it be the changes that have happened within the Commission and of which the applicant is probably entirely unconscious and unprepared to adjust his proof to later.

In this case, Mr. Examiner, since the record shows that the under-quota condition is still a very large figure, it would not make relatively any difference; but the point in the record is important to preserve as of what date our proof is directed. It has been important in other cases where the adjustment was slight and the difference had brought them almost to par before the case was heard.

I should like the record, therefore, to show what the quota condition was at the time of the filing of the application and the preparation of proof. The question I asked Mr. Ring to supply an answer to for the record is, What changes have elapsed to which certain values have been attached by the Commission, to change the quota from 35 to 20?

Chief Examiner Yost: You specify the date as January?

Mrs. Willebrandt: January 6 was the published
250 one which the applicant had access to at the time it filed its application.

Chief Examiner Yost: Do you differentiate between the date of January 6, 1931, and the date on which your application was filed for Station WJKS?

Mrs. Willebrandt: I am making it the published statement, Mr. Examiner, that was out at the time we filed our statement of proof. I think it should be held to the an-

nounced quota figures that the Radio Commission had at the time we filed our statement of proof.

Chief Examiner Yost: That may be done. The
251 Examiner can see no objection to its going into the record.

The Witness: I will give you that data at this time.

Mrs. Willebrandt: Mr. Smith calls my attention to one other fact that bears out that statement, which is that the Commission's notice to the applicant setting the date for hearing says specifically that the case is set for hearing because the Commission is in doubt of the wisdom of granting the application by reason of the quota figures on that date.

Chief Examiner Yost: The Examiner would feel perfectly justified at the time of making his report to embody in his report what the quota figures were on the date of the report as well as those shown by the record at the date of the hearing.

The Witness: I can give you the facilities that have been granted since January 6, if you want them.

By Mrs. Willebrandt:

Q. Can you give me the facilities that have brought, since January 6, the percentage from 35 to 19? That is a considerable reduction, and I am unconscious of enough having been granted to Indiana to reduce it to that amount, unless there be adjustments which I think are material in this case. A. The facilities granted Indiana that have re-
duced the under-quota percentage from 36 to 20 are
252 the granting to Station WOWO full daytime operation, and to WGBF full daytime operation. These were made on February 27, 1931.

Q. May I ask whether they were reports of the Examiner on final actions by the Commission?

This point and these points are material in laying a record. This quota in every announcement to an applicant as to what he is to prove and how he must prove it is made a measuring stick that limits the Examiner's power, if you please, to recommend favorably or adversely. It is right for each applicant to show in his record, I therefore maintain, what the quota figures were as of the date his application was set for hearing, and let the determination of his case rest upon them as of that date. Whether there be

additional facilities that will have been granted in the interim of his case having been set and having been heard, should not prejudice one way or the other or affect his proof or the weighing of the proof.

Chief Examiner Yost: Your question is as to whether or not this additional grant of facilities was due to recommendations after hearing by Examiners or whether it was made upon the Commission's own initiative or upon application from these stations without hearing.

Mrs. Willebrandt: Not necessarily that. The point I wish to bring out is that if an applicant is to have
253 in his record a certain percentage, either for him or against him, on this quota figure, and it varies from the published report as it does here, from the figures which prevailed at the time he made his application, then any adjustments that have been thereafter made should be adjustments that would show in each instance final determination by the Commission.

In other words, the quota of a state should not be raised or lowered by a report of an Examiner until it has been approved by the Commission until the period for appeal has gone by.

Do I make my position clear? In these two instances we do not know—and that was my question, you see—whether the granting of additional time has brought this quota down by almost half, and whether that is a final grant or whether it is still only tentative.

Mr. Newman: You mean, the fact that they can appeal?

Mrs. Willebrandt. Yes, either way.

Mr. Newman. I submit that there is sufficient left for Mrs. Willebrandt, and it would not make any difference how much more was left two months ago.

Mrs. Willebrandt. That is perfectly true; but the question is proper. That is all we are arguing.

Mr. Newman: The question is improper, because the Examiner's report is not official in any sense of the word.

Chief Examiner Yost. These are all facts. They may not be very material, but the Examiner can see no reason to prevent their going into the record.

254 The Witness: I am of the opinion that the grant was made without hearings and a subsequent Examiner's report.

Chief Examiner Yost: You do not know of your own personal knowledge?

The Witness: I am in such a position that if any hearings were held it is probable that I would know about them; and I do not know of such hearings. I do know the time that the requests came in to the Commission, and they were granted. I am familiar with the major aspects of the situation.

By Mrs. Willebrandt:

Q. What area for excellent service would be the distance for a 500-watt station? A. City service, six and a half miles.

Q. A 1,000-watt station? A. Nine miles.

Q. And a 5,000-watt station? A. Eighteen miles.

255 Q. And a 10,000-watt station? A. Twenty-five miles.

Q. Are you giving the excellent service? A. Excellent city service.

Q. What is the figure for a 25,000-watt station? A. Thirty-five miles.

Q. And a 50,000-watt station? A. Forty-five miles.

Q. Will you give me the good service area of these same sized stations, beginning at 100 watts? A. The good residential section service of a hundred-watt station is 13 miles; of a 250-watt station, 20 miles; of a 500-watt station, 25 miles; of a thousand-watt station, 35 miles; of a 5,000-watt station, 60 miles; of a 10 k. w. station, 75 miles; of a 25 k. w. station, 90 miles; of a 50 k. w. station, 110 miles.

Q. May I ask whether, in your opinion, moving the 560 frequency from the location of WIBO in Chicago to the location of this applicant in Gary would increase the interference of WEAO, the Columbus station? A. Moving the assignment from the location of WIBO to that of WJKS

256 would, by my record, be a move of approximately 30 miles southeast. The distance from Gary to the Columbus station, WEAO, is 250 miles. A change of 30 miles in 250 cannot of itself be said to be sufficient to definitely determine that interference would be increased. There may be other factors, such as the directiveness of the antenna, or local absorptions, that would have more effect in that short move.

Chief Examiner Yost: What is the assigned frequency of WEAO?

The Witness: 570 kilocycles.

Chief Examiner Yost: What is the daytime and night time recommended separation between two stations operating on adjacent frequencies simultaneously, one with a power of 1,000 watts and the other with a power of 750 watts? A. The night time recommended separation, with a 10-kilocycle separation, between a 750 and a 1,000 watt station is 350 miles. Daytime, 175 miles.

By Mrs. Willebrandt:

Q. What is the present mileage separation between the Columbus station and the applicant? A. Approximately 250 miles.

Q. What is the mileage separation now between WIBO and the Columbus station? A. Approximately 30 miles greater, or 280 miles.

Q. If the 1360 kilocycle frequency is moved into Chicago, would it have the same relatively beneficial effect as the relative detrimental effect of moving 560 into Gary?

Mr. Newman: Is anybody going to move 1360 to Chicago, Mr. Yost? I do not see the materiality of that question.

257 Chief Examiner Yost: What is the purpose of that question?

Mrs. Willebrandt: It is shared by the Chicago station. If you take the station at Gary off that frequency, it moves it to Chicago. That is the basis of the question.

Chief Examiner Yost. The Chicago station has only half time on the frequency of 1360 kilocycles?

Mrs. Willebrandt: Yes, but it puts that frequency in Chicago only if this application is granted.

Chief Examiner Yost: The Examiner does not quite understand the purpose of your question.

Mrs. Willebrandt: The purpose that I was bringing out in the question was that there has been a suggestion by the Columbus station that a 35-mile move of the station on the 560 frequency, closer to it, might have a somewhat detrimental effect, problematical in the amount, upon Columbus; and the point I was bringing out is that I am asking whether the taking of the 1360 frequency out of Gary would relatively give the same beneficial adjustment.

Chief Examiner Yost: In other words, you are asking, in substance, what the effect would be of granting this application?

Mrs. Willebrandt: Yes, as far as the beneficial or detrimental effect of taking 1360 out of the Gary area.

Chief Examiner Yost: He may answer that question.

The Witness: It is believed that local conditions would probably have more effect than the short change in actual mileage as compared with the other stations on the main channel and adjacent channels. That is, moving may increase the interference or it may decrease it, dependent upon local conditions of the antenna erection, and so on, of which I naturally have no knowledge.

258

Q. Is the State of Ohio over quota or under quota? A. Ohio is under quota.

Q. By how much? A. 6 units.

Q. And the State of Indiana is 36 or 19, depending upon which figure is used.

Chief Examiner Yost : He is giving the figure for Ohio as of the present date compared with that of Indiana of the present date.

The Witness: Indiana, according to thist list dated January 6, 1931, is 3.35 units under quota, or 35 per cent.

Chief Examiner Yost: What is Ohio of that date?

The Witness: On that date Ohio was .6 units under quota, or 3 per cent.

259

260 By Mrs. Willebrandt:

Q. May I ask, Mr. Ring, that you give as of January 6, 1931, the units and the percentage for Ohio and for Indiana? A. Ohio is .6 units under quota, or 3 per cent, as of January 6, 1931.

Indiana is 3.35 units, or 35 per cent, under quota as of the same date.

261 Cross-examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. Will you state the stations assigned to the frequency of 1360 kilocycles and on adjacent channels which might

be capable of causing interference with WJKS on its present assignment? And give the distances between these stations and WJKS and the recommended separation in miles in each case. A. The stations operating on a frequency of 1360 kilocycles, less than the recommended separation from WJKS at Gary, Indiana, are as follows:

WFBL, Syracuse, New York, a distance of approximately 600 miles. This station operates with a night power of 1,000 watts. The recommended separation is 1200 miles.

WCSC at Charleston, South Carolina, a distance of approximately 750 miles. The Charleston station operates with a power of 500 watts at night. The recommended separation is 1050 miles.

KGIR, Butte, Montana, is also on that frequency, operating with a power of 500 watts. The separation is 1310 miles, which is greater than the recommended separation.

On the adjacent frequency of 1350 is Station KWK at St. Louis, Missouri, which is licensed to operate with a power of a thousand watts. The separation between Gary and St. Louis is 260 miles. The recommended separation is 350 miles.

262 A station on the adjacent channel of 1370 kilocycles, 10 kilocycles separted from the channel in question, is Station WRJN, at Racine, Wisconsin, licensed to operate with a power of 100 watts. The mileage between Racine and Gary is approximately 90 miles. The recommended separation for night operation between a 1,000-watt station and a 100-watt station operating on adjacent channels is 210 miles.

Station WGL is licensed to operate on an adjacent frequency, that of 1370 kilocycles, with a power of 100 watts. The distance between Fort Wayne and Gary is approximately 115 miles. The recommended separation is, again, 210 miles.

Those are all I see that appear to be less than the recommended separation.

Q. Please give us the same information with regard to the frequency of 560 kilocycles and adjacent channels to which WJKS, if assigned the frequency of 560 kilocycles, might cause interference or from which WJKS might receive interference. Give the distance between those stations and WJKS and the recommended separation in miles in each case. A. On the frequency of 560 kilocycles, sta-

tions less than the recommended separation are WNOX, at Knoxville, Tennessee, a distance of approximately 440 miles. WNOX is licensed to operate with a night power of 1,000 watts. The recommended separation is 1200 miles.

Station WLIT at Philadelphia is licensed to operate with a power of 500 watts. The distance between Philadelphia and Gary is approximately 670 miles. The recommended separation under those conditions is 1050 miles.

Station KFBM at Beaumont, Texas, is licensed to operate with a night power of 500 watts. The dis-
263 tance between Beaumont and Gary is approximately 900 miles. The recommended separation is 1050 miles.

Station KLZ at Denver, Colorado, is licensed to operate with a night power of 1 k. w. The distance between Denver and Gary is approximately 920 miles. The recommended separation is 1200 miles.

On the adjacent channel of 570 kilocycles, Station WEAO at Columbus, Ohio, is licensed to operate with a power of 75[illegible] watts. The distance between Columbus and Gary is approximately 250 miles. The recommended separation between stations 10 kilocycles removed in frequency for night operation is 350 miles.

Station WKRC at Cincinnati, Ohio, is licensed to operate on the adjacent channel of 550 kilocycles with a power of 1,000 watts. The distance between Gary and Cincinnati is approximately 225 miles. These stations are 10 kilocycles removed in frequency, and the recommended separation for night operation is 350 miles.

They appear to be all the stations less than the recommended separation.

Q. Will you examine WKZO at Berrien Springs, Michigan? A. WKZO, Kalamazoo, Michigan, is licensed to operate with a power of 1,000 watts daytime on the frequency of 590 kilocycles, 30 kilocycles from the frequency of 560 kilocycles. The recommended separation for day operation between thousand-watt stations 30 kilocycles removed in frequency is 96 miles. The actual separation between Kalamazoo and Gary is approximately 105 miles.

264 Q. Is that station at Berrien Springs or at Kalamazoo? A. My records show the station with a construction permit to move to Kalamazoo, and our records accordingly show it to be in Kalamazaa.

Q. What about KSD and KFUO at St. Louis? A. KSD and KFUO, located at St. Louis, operate on the adjacent frequency of 550 kilocycles, with a power of 500 watts night. The distance between St. Louis and Gary is approximately 270 miles. The recommended separation between a 1,000-watt station and a 500-watt station operating on adjacent channels 10 kilocycles removed in frequency for night operation, is 300 miles.

Q. How many microvolts per meter constitute actual service for stations of a power of 100 watts to 5,000 watts? A. The excellent city service of a station of that kind is based on a field intensity of 10 millivolts per meter or 10,000 microvolts per meter.

Q. What are the microvolts per meter for good service? A. Good residential service, taking the mileages that I gave, is based on a field of 2 millivolts per meter or 2,000 microvolts per meter.

Q. I will ask you to please state the quota units due the state of Illinois for regional stations. A. Illinois is due on regional channels 7.31 units; assigned, 2.95 units.

Q. Is radio station WIBO classed as a regional station? A. Yes.

Q. Please state the quota units due Indiana for a
265 regional station. A. Indiana is due on regional channels 3.10 units; assigned, 2.53 units.

Q. Is station WJKS a regional station? A. Yes.

Q. If WJKS secured full time, how much would this increase Indiana's quota for regional stations? A. It would increase Indiana's regional quota by .43 of a unit.

Q. Then the total regional units would be what for Indiana? A. The total regional units assigned would be 2.96.

Q. This would bring Indiana's assignment for regional stations to within what percentage of that due? A. Within 4.5 per cent.

Q. What would be the total units assigned to Illinois if WJKS were assigned full time on 560 kilocycles and the present occupant of 560 in Illinois were not relicensed? I am referring to regional units. A. The Illinois regional quota would be decreased by .88 units and would then be assigned 2.07 regional units.

Q. This would be what percentage of the regional units due Illinois? A. 28.3 per cent of the units due.

Q. Is it not a fact that northern Indiana has service from several clear channel stations assigned to the 4th Zone? A. Yes. The northern area of Indiana is estimated to be in the good service area of several of the 4th Zone clear channel stations.

266 Cross-examination on behalf of respondent WPCC.

By Mr. Clifford:

Q. Mr. Ring, I would like to have your opinion on this question. If you were a radio listener at Gary, Indiana, and tuned in with the average radio set to WIBO at night when that station is being operated on 560 kilocycles, and if station WEAO at Columbus was being operated at the same time on 570 kilocycles, would you get interference? A. I would not expect any cross talk interference unless some very unusual circumstances were present.

By Mr. Clifford:

Q. Should the Commission grant the applicant the
267 right to operate on 560 kilocycles at Gary, how many stations operating on 550 and 570 kilocycles would be more likely to suffer greater interference because of being closer together and, thereby, contrary to the rule of the Commission. A. I gave a list previously of the stations that would be decreased in mileage separation and further expressed the opinion that the decrease in mileage separation was only a small per cent of the actual separation, and accordingly local conditions were more likely to control the interference that might be had, rather than the short change in location.

Additional cross-examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. If one of the clear channel frequencies were changed to a regional channel and the power reduced to 1,000 watts, what would be the then status of the Illinois quota? A. Reducing one of the Illinois clear channel assignments to a regional assignment of 1,000 watts would reduce the
268 quota units assigned Illinois from 33.65 to 29.65, and the state would then be 7.15 units over quota.

Cross-examination on behalf of respondent WISJ.

By Mr. Fowler:

Q. Mr. Ring, referring to your testimony on the quota, will you please state in what zone Indiana is located? A. The 4th Zone.

Q. And is Wisconsin located in that same zone? A. Yes.

Q. Is the 4th Zone under quota or over quota. A. The 4th Zone is over quota.

Q. I believe you testified yesterday that Indiana was under quota? A. Yes.

Q. Is the State of Wisconsin under quota or over quota? A. Wisconsin is under quota.

Q. By how many units? A. .41 units.

Q. And what is the percentage under quota? A. Five per cent.

Q. Mr. Ring, assume that the Commission sees fit to restore station WISJ to its position on 560 kilocycles: would the granting of the application of WJKS increase or decrease the quota for Wisconsin? A. It would decrease the quota for Wisconsin if WISJ is removed.

Mr. Fowler: Mr. Examiner, I would like the record
269 to show at this point that General Order 102 of the Federal Radio Commission provides, in Section 2, that applications from under-quota states in zones which have already been allocated to have their pro rata share of radio facilities should be for a facility already in use in that zone by an over-quota state.

Redirect examination.

By Mrs. Willebrandt:

Q. Is it generally believed that the angle of radiation of a high frequency station will cause more local interference to a station on the same frequency at a distance of 500 or 700 miles than will a station on low frequency cause to a station only several hundred miles separated? In other words, will you explain whether it is generally believed that the radiation of high frequency goes practically at an angle and drops down so that consequently the interference or nuisance value is more likely to occur at a considerable distance than on a low frequency, the low frequency radiating out

on a more level line? Is that generally believed? A. The angle of radiation of a broadcasting station is dependent upon the antenna and the frequency at which the antenna is operated; but if we assume the same energy radiated in a given angle to the horizontal, it is further gener-
270 ally believed that the higher frequency is more completely reflected and accordingly gives somewhat stronger signals at distances than do the lower frequencies. The higher frequencies accordingly may produce more interference with stations at a distance. However, the antenna structure has considerable to do with it, and such a rule cannot be drawn as applying to the entire broadcast band, because in many cases we know of it is the reverse from one end of the broadcast spectrum to the other.

Q. I am assuming, now, in my question that the antenna situation is the same. The question would not be possible of an answer without that. Now assume that the antenna situation is uniform and appropriate: is it a generally accepted belief that better immediate local service may be expected from a low frequency station than from a high frequency station of the same power? A. The absorption of ground wave on the lower frequency station is as a general rule less than on the high frequency, and accordingly the low frequency station will give better immediate local service from the transmitter.

Q. So that if the purpose of a station was to serve an immediate local compact area, other things being equal, it is likely that it could more evenly do so on a low frequency than on a high frequency? A. That would quite probably be true.

Q. And is it also probable, other things being equal to which we have referred, that a low frequency will cause less interference by mileage, that is, by coming a little closer in miles, than would a high frequency? A. If the
271 entire country were uniform and the antennas were all made to work exactly the same way with respect to the frequency operated upon, that would probably be true; but it is quite removed from what the actual conditions are that are encountered.

Q. Yes; we are assuming in hypothetical questions certain impossible factors, one being that antennas are all right, and those things we cannot put in any proof about. There is just one other question. Therefore would you

say, all other things being equal, that is, these hypothetical factors we have spoken of, that bringing two stations 35 miles nearer would be likely to cause less interference merely because of the 35 miles, if the frequency was lower than if it were higher? A. The local conditions that generally prevail would determine the interference over a slight move of 35 miles compared with the mileage separation of two stations with which interference is expected.

Q. In other words, so far as scientists have been able to diagnose the symptoms of high frequencies and low frequencies, and come to scientific conclusions with respect to their operation, with the many variables that they cannot control, moving 35 miles closer would be likely to have less nuisance value on 560 than it would on a higher frequency, would it not? A. With respect to side frequencies on 560 there is a possibility of cross talk interference being increased due to the better propagation at the lower frequency. Heterodyne interference would be de-
272-275 pendent, as to distant stations, more upon the antenna than upon that slight difference in distance.

Q. It is the latter that we generally speak of as nuisance area, is it not? A. When we refer to the nuisance area, it is that area over which a station causes interference but does not give service, which generally is the sky wave factor.

Q. You said that WIBO and WPCC were worth .88 units, did you not? A. Yes.

Q. Will you please state whether they are counted as .88 in the figures you have given us, first, as of January 6th, 1931, and then as of the present time, separating your answer, if you please? A. I made an intensive search of the hours that the stations were licensed to operate and arrived at that figure from those hours. From my record the quota units for the two stations are given as .69.

Q. Will you please turn to the stations on 550 kilocycle frequency, and examining the stations and the distance separation, tell me whether any of the stations on that band fall 35 miles or more below the recommended sepa-
276 ration of the Commission? A. WKRC at Cincinnati is approximately 310 miles from KSD and KFUO at St. Louis with a night power for the St. Louis stations of

500 watts, and for the Cincinnati station of 1,000 watts. The recommended separation is 1,050 miles.

Q. You have had protests on those stations with regard to cross talk? A. Yes; we have had letters, supervisors' reports and other information showing serious interference.

Q. That falls how much under the recommended separation? A. Approximately one third.

277 Chief Examiner Yost: Are you prepared to show by competent testimony the conditions that result from the operation of these stations?

Mrs. Willebrandt: No. All I can show is the negative. That is all we have access to, and I would have to show that through the Radio Commission's own witnesses.

278 Q. Do you consider that the recommended separation of the Commission has got slack enough in it under normal operating conditions, and in the absence of other factors which you cannot compute, to make the interference between two stations located 30 miles closer to one another than the recommended separation of the Commission, a negligible interference?

Mr. Newman: Put the further qualification in there as to the actual distances, and the powers. Thirty miles may not make any difference when it is 3,000, but it may make a difference when it is 300.

Mrs. Willebrandt: The powers are the same.

The Witness. I am familiar with cases of stations less than the recommended separation where we have but little complaint of interference. I am familiar with cases greater than the recommended separation where we have many complaints of interference.

Chief Examiner Yost: For that reason the Examiner is of the opinion that the proof should be directed to particular stations that are now in operation if it is desired to show the result on this frequency or frequencies adjacent thereto; and he is further of the opinion that the fact cannot be established by the negative. The mere absence of complaints is not sufficient to establish the fact that there is not interference.

279-281 Mrs. Willebrandt: If the Examiner will be patient with my taking issue with that statement to this extent, let me say that an applicant before the Radio Commission is confronted by a constant series of

either real rules or shibboleths. We want to find the truth about those that are real rules. These recommended separations count for almost nothing, apparently, in the actual practice of the assignment of stations, because the records show almost daily assignments a little below. The only point I wish to bring out in an average from him is that this recommended separation is a scientific recommendation only and has slack in it.

Chief Examiner Yost: That may be shown. But the Examiner is of the opinion that the applicant should show by positive and direct testimony the result of the operation of any such stations that you seek to compare with the station of the applicant.

282 Chief Examiner Yost: Of course, the witness may answer any question that is relevant to the issue here, based upon his skill and experience and knowledge as an expert engineer; and only in so far as he answers that and only in so far as proof has been offered of the effect of the operation of any particular station will the testimony be regarded or considered.

283 & 284 By Mr. Newman:

Q. Mr. Ring, if you assume that a station changes its frequency from 1,360 to 560 kilocycles, and in each case adjusts its equipment to maximum efficiency of radiation, can the average listener tell the difference in volume? A. That will depend somewhat on the location of the listener. Generally speaking, there probably would not be a great deal of difference unless there were conditions present that changes the absorption factor on the particular fre-

285 quencies.

Q. Mr. Ring, on what do you base your recommended distance separations which you would recommend as between any two given stations? A. I base my recommended separations on this table that was prepared, on my own personal experience in listening to stations, on testimony given by other experts on the subject, and on numerous readings taken by the Department of Commerce Radio Division, and reported to the Commission. On these numerous field intensity readings, we have made graphs of the average propagation to be expected throughout the country. These reports have been verified by further

286 inspections made of the stations operating on the various frequencies.

Q. What factors are taken into consideration? A. In making our average propagation, we measure the stations as they are operating today.

Q. What other factors, with respect to the nature of the topography of the country as a whole? A. They are based on actual measurements. Actual measurements naturally take in all involved factors.

Q. They do not represent a distance which you would recommend under ideal conditions of broadcasting, do they? A. The table is made up from average conditions, to prevent interference in the good-service area, and no endeavor is made to protect the intermittent service area of the station on average conditions in the United States.

By Chief Examiner Yost:

Q. Your recommendations are the same for the entire country, regardless of the natural conditions that prevail? A. Our table is made up as an average, thought to be best applicable to the entire country, although it is well known that various parts of the country vary somewhat.

By Mr. Newman:

Q. However, is it better, Mr. Ring, that the distances in the usual cases be greater or less than those which you have recommended? A. If it is desired to protect further than the good-service area, the distances should be
287 greater, and in the central part of the country, especially in the Mississippi Valley and in the lower Lake region, the distances are too small, if anything.

Q. When you say the good-service area, do you mean by that the radius in miles which you would expect in accordance with the first classification of service, bearing in mind that we usually have three classifications? A. Good city residential to rural area, is what I have in mind when I define good-service area.

Q. What did you state that to be in the case of a 1,000-watt station? A. The good-service area of a 1,000-watt station is estimated to be approximately 35 miles. However, that will not render good service for that distance in the business sections of cities.

Cross-examination on behalf of WIBO.

By Mr. Boyd:

Q. Mr. Ring, if, by examining your airline map, you find 47 miles to be the exact, precise distance between the transmitter of WIBO and the transmitter of WJKS, your testimony would be changed in that particular? A. Not materially, because 49 miles compares with the——

Q. I will ask you to examine the map and find out whether or not it is 47 miles, in spite of the testimony which you furnished? A. What is the exact location?

Q. Desplaines. A. (After examining map.) I
288 measure the distance between Desplaines and Gary to be 42½ miles, after careful computation.

By Chief Examiner Yost:

Q. That is, Gary is 42½ miles nearer Columbus than is Chicago? A. Just about. Gary, Desplaines and Columbus are approximately in line. I have given the distance as I have measured it from this atlas, the Rand-McNally commercial atlas.

By Mr. Boyd:

Q. Will not high angle radiation or heavyside cause more interference at a distance than close-by? A. High angle radiation generally means that the sky wave will be reflected back to the earth relatively close, causing closer interference. Low angle radiation gives a sky wave that returns at a greater distance from the transmitter,

Q. Is not low angle radiation ineffective for short distances, as compared to the horizontal or ground wave radiation? A. The low angle radiation naturally would return at a great distance, and not have any material effect upon the horizontal radiation or ground wave.

Q. In an antenna, does not a large portion of flat top increase the low angle radiation? A. Yes. It is generally considered that the low angle radiation may be increased by adding flat top.

Q. Would not the elimination of a portion of low
289 angle radiation, and an increase in the ground wave radiation, improve the ratio between the desired signal received, and interference within the service area of

a station, all other conditions remaining the same? A. The greater the radiation on the horizontal portion, the less the interference would be, it is expected, with other stations at distances on the same frequency, but the cross-talk interference may be increased locally.

Q. Is the question clear to you? A. When you say "within the service area of a station", I considered that to be any station, and answered accordingly. You will have to define the station you are thinking about. I considered it as any station with which interference may be caused.

Q. Use that in connection with WJKS, and the service area of Station WJKS.—that is, changing the equipment of WJKS, and confining it to the service area of WJKS. A. Any change in the equipment of antenna system whereby the energy is radiated more on the horizontal plane, would indoubtedly result in improvement of the service of the station.

290 By Mr. Boyd:

Q. Will a 100-watt station located at the location of WJKS, efficiently operated, provide satisfactory and proper service to the citizens of Gary who are listeners to that station? A. It would not be possible for me, with only the information I have at hand, to say that I believe, or do not believe, that a 100-watt station could serve the city of Gary. That is dependent upon many factors, such as the absorption, the size of the town, the possible location of the station, and so forth.

By Mrs. Willebrandt:

Q. Mr. Ring, may I ask you one hypothetical question? If a station had, within the distance that you have testified to as its excellent or good-service area, definite cross-talk and constant interference of a cross-talk and heterodyne nature, so that occasionally the names of stations on its same frequency could be heard, would you call that rendering what you have described as good service within that good-service area? A. If I understand the question
291 correctly, any cross-talk interferences within the good-service area naturally is objectionable interference in the good-service area.

By Mrs. Willebrandt:

Q. It means that it is not good service? A. Limiting that area that may be considered as the good-service area.

Q. If it is found, within the good-service area, such as you have defined, that there is interference by cross-talk, so that another station on the same frequency comes in clearly enough so that its call letters can be distinguished, how may that be corrected? A. In two general ways: first, increase the signal of the station until the interference is no longer noticeable; and second, eliminate the source of the interference.

292 Chief Examiner Yost: Certainly the quality of service rendered by Station WJKS on its present frequency assignment, and the question of interference and cross-talk, are in issue here, and may be rebutted or gone into to a considerable extent by any parties to this hearing.

By Mrs. Willebrandt:

Q. What is the power of Station WFBL Syracuse? A. 1,000 watts night, and 2,500 watts day.

Q. What is its milage separation from WJKS? A. Approximately 590 miles.

Q. Is that within the recommended mileage separation? A. That is approximately half the recommended mileage separation.

Mrs. Willebrandt: Here may I call the Examiner's attention, on the record, to the fact that General Order 102 limits us, in our application, to the selection of a station within the zone that is over-quota, in order to put in our proof to correct the evils that we make an effort to show we are suffering from. We have to choose a station in an over-quota State, within our Zone.

Q. Would you say, that if a station of 1,000 watts on the frequency of the applicant here, is operating at half
293 the recommended mileage separation from another station on the same frequency, it would cause cross-talk and interference under normal broadcasting conditions? A. For cross-talk to be the predominant interference between two stations on the same frequency, it is necessary that their frequencies be keep so close that the

heterodyne is not noticeable; and from the statement of the attorney, that appears to be the case. Under those conditions, the mileage separation is much less when objectionable heterodyne would be caused, than in the case of cross-talk.

Frank B. Falknor was called as a witness on behalf of the applicant and, having been first duly sworn, testified as follows:

Direct examination:

Mrs. Willebrandt: I presume it might be stipulated that Mr. Falknor may be qualified as an expert. He has been qualified many times before the Federal Radio Commision. He was qualified as an expert in the high power hearings.

By Mrs. Willebrandt:

294 Q. Will you state your experience? A. I attended Carnegie Institute of Technology in Pittsburgh for three years, and studied physics, and entered the Westinghouse Electric & Manufacturing Company at Pittsburgh, Pennsylvania, and was employed there from April, 1920, to November, 1920, in the electrical engineering laboratory. From November, 1920, to June, 1921, I was an electrical engineer. From June, 1921 to December, 1925, I was a radio engineer. From December, 1925, to October, 1927, I was employed as radio engineering assistant to Dr. Frank Conrad, assistant chief engineer of the Westinghouse Company. During this employment, I had complete charge of the development and installation of the synchronization of radio stations WBZ, Springfield, Massachusetts, and
295 WBZA, at Boston. Since October, 1927, I have been acting in a consulting capacity on radio matters to the Elgin National Watch Company of Elgin, Illinois; the teletype division of the Western Electric Company, Chicago; the Fox West Coast Theatres Company; and the Fox Film Company; also the Westinghouse Electric & Manufacturing Company, and the Indianapolis Light & Power Company, as well as quite a number of radio stations.

Q. Have you made an examination of the transmitter of the applicant station? A. I made an examination of the transmitter of WJKS on March 5, and found that the

transmitter consisted of a crystal control apparatus with the usual and necessary intermediate amplifier stages, that would be used in that type of equipment. They employ low level modulation, and the antenna was fed by a power amplifier using a Western Electric type 228 tube. The apparatus was so arranged as to produce high level modulation. The equipment was in good mechanical condition, and appeared to be in good electrical condition. It is
296 an average and typical composite transmitter.

Q. Figuring the power input to the transmitter according to the standards set by the Radio Commission, is the transmitter of WJKS capable of putting 1,000 watts into the antenna, with 100 per cent modulation? A. All the apparatus in use is capable of putting a thousand watts into the antenna. At the time I was there and made the inspection, the plate voltages, according to the meters, were 4,000 volts, and the plate current on the last amplifier tube was .75 amperes, which, according to General Order 93, is a proper input for 1,000 watts.

Q. Where do you live, Mr. Falknor? A. 8028 Vernon Avenue, Chicago.

Q. With respect to the mileage from the antenna of WJKS, where are you? A. About 30 or 35 miles, I believe, from WJKS.

Q. You are within the reasonable service area of WJKS? A. Yes.

Q. Do you listen to WJKS? A. I do occasionally.

Q. For how long a period of time have you been observing WJKS? A. Well, I have been observing them rather intermittently for at least a year, and at various times the signal was too poor to give good service—not from the signal strength standpoint, but due to a heterodyne, usually of anywhere from 200 to about 100 cycles
297 per second, which made it rather objectionable to listen to. On March 4th and 5th of this year, I made two observations for the specific purpose of determining the extent of the heterodyne. I found on those two dates that the heterodyne was extremely bad. It was some time between 7:30 and 9 p.m.

Q. Could you identify the cause of the heterodyne? A. The station causing it could not be identified.

Q. In your opinion was it definitely caused by other stations, or another station? A. The beat note was very

constant, which would lead me to believe, and I do believe, that it was caused by another radio station.

Q. Are you familar with the stations in the Chicago area? A. I am familiar with most of them, and I have made a study of their service areas.

Q. I will ask you to look at this map, first, and state what it is. A. This map was made from a Rand-McNally map, and it is a map showing a portion of Northern Illinois, Indiana, and Michigan. It has circles drawn on it to indicate the good-service areas of Stations in the Chicago vicinity.

298 Q. Are all the stations in the Chicago vicinity represented on this map? A. No, they are not. Several stations have a good-service area that falls outside the extent of this particular map. They are indicated in the notes, and are: WENR, WLS, WGN and WJJD.

Q. All the others that are small enough to show on this map of the Lake Michigan area, including Chicago, Michigan and Indiana, around the Lake, are shown here? A. They are shown.

Q. Will you state whether this map was made under your direction? A. It was made under my direction.

Q. You have referred to the good-service area as represented in the circles on this map. State exactly what you mean by that. A. The radii of the circles on the map are such that they conform with the radius given in a previous hearing before the Commission in the WGY case, in which the Commission specified various service areas for various powers. Those radii were taken and circles drawn from those data.

299 Q. Are they substantially what Mr. Ring has just given on the stand? A. They are substantially the same. There is some variation.

Q. Is the variation appreciable, so that it would make any appreciable difference here so far as the distance is concerned from Gary to Chicago? A. It would make very little difference from that standpoint. Most of the difference exists in the stations of 10, 20, 25 and 50 kilowatts.

Q. The 25 and 50-kilowatt stations are too large, anyway, to show on this map? A. They are too large, anyway, to show on the map.

Q. The smaller stations in Mr. Ring's testimony were substantially given as you computed them here, according

to the Radio Commission's testimony in the WGY case? A. The smaller stations, I believe, are exactly the same.

Chief Examiner Yost: The witness is prepared to testify that all the information contained on this map, in addition to the original map, is true and correct, and is what it purports to be?

The Witness: Yes, to the best of my knowledge.

Chief Examiner Yost: It may be admitted.

(The map referred to, showing parts of Illinois, Indiana and Michigan, was marked, "Applicant's Exhibit No. 1," and two copies thereof are on file with the Commission.)

By Mrs. Willebrandt:

Q. Examining this map, Mr. Falknor, will you please state what other stations serve the same area, and,
300 according to that computation, completely overlap the good service area of WIBO? A. WMAQ, WJAZ, WCHI, KYW, WBBM, WENR, WLS, WGN and WJJD.

Q. Now, will you give the list of stations that overlap, by at least 50 per cent, the good service area of WIBO—or very largely overlap it? You cannot give exact*ly* percentages, of course. A. I cannot give exact percentages, but it is very largely covered by WCFL, WGES, WPCC, WEHS, WKBI, WCRW, WSBC, and WEDC. I believe that is all.

Chief Examiner Yost: Dr. O'Hair, you may take the witness stand.

Testimony on Behalf of WPCC.

Whereupon **John C. O'Hair** was called as a witness on behalf of WPCC and, having been first duly sworn, testified as follows:

Direct examination.

By Mr. Clifford:

Q. State your name and address. A. John C. O'Hair, 1011 Wilson Avenue, Chicago.

Q. What is your business? A. I am Pastor of the North Shore Church of Chicago. They call me the general manager of the radio station.

Q. You are appearing here, then, for the North
301 Shore Church of Chicago, which is a respondent in this case, being the owner and operator of Station WPCC? A. Yes, sir. WPCC operates on 560 kilocycles. We share time with WIBO of Chicago.

Q. What time does your radio station appear on the air now? A. We are licensed for 12 hours, Sunday only, but by an agreement for division of time, we relinquish or release to WIBO from 12:30 to 4:30; and from 7 to 8 on Sunday, 5 hours. We release that time to them, and in exchange we broadcast by remote control over their transmitter, from our church, 30 minutes each day, from 12 to 12:30 p. m.; Monday from 7 to 7:30 p. m.; Tuesday from 7:30 to 8 p. m.; and Friday evening from 6 to 6:30 p. m.

Q. What is the nature of the programs that you are putting over the radio station? A. We broadcast on Sunday morning the International Sunday School lesson; then the organ, the choir, and the congregational singing, and the message in the morning. Then we go off at 12:30. From 6 to 7 Sunday evening, we have different choirs come in, and special singers. There is no speaking during that hour, from 6 to 7, as a rule, unless there is a missionary or someone visiting in the city. Then we are off from 7 to 8, and we come on with the evening services—that is, the congregational singing and the message. At 9:30 we put on the request program for an hour and a half.

302 Q. What does this program consist of? A. We have special choirs come in and sing. The message is asked for over the telephone and through mail, by our radio supporters and friends. We try to make this very largely interdenominational. We have different choirs, and we are interdenominational. We have, I think, 14 different denominations represented in our membership. We do not lay very much stress on membership. We try to get them in the real church.

Q. Where is your church located in Chicago? A. Sheridan Road and Wilson Avenue. That is 4600 North and two blocks West of the Lake.

Q. What do you broadcast on Weekdays? A. I did not get through with that Sunday night program. From 9:30 to 11 we have a program, and then we have always special musical programs between 11 and 12, and one 15-minute message.

Q. You mean by "message," a sermon? A. A sermon. From 12 each day at noon, I have a WPCC class. I have been broadcasting for two years over WIBO, and we have in that class thousands of registered members—in the WPCC class—and they have been real helpers with us in our relief work. They support about five missionaries in the foreign field, through this WPCC class. There are represented in the membership of that class, representatives from nine States and Canada.

Q. Do those members send in contributions to you for your religious and benevolent work of the church? A. Oh, yes. They support these five missionaries. I think they have given 50 per cent of the money we have had in relief work. Many of them are also our WPCC hearers.
303 They are identified with us on both stations. Then Monday evening, from 7 to 7:30, I give a message on prophesy, which is very interesting to the great majority of people who know anything about the movements of this age in which we live. Then, Tuesday evenings, we have a high-class musical program. That is all music on Tuesday evening. That is over WIBO. Then on Friday evening, from 6 to 6:30, there is an evangelistic or Bible exposition for 30 minutes. As a rule on Friday, that is the general program.

Q. Are these programs, then, that you broadcast, all religious, devotional, and spiritual? A. Well, I never touch politics, and we have no book reviews, except the Bible, and our work, of course, is of a spiritual nature, but not to build up any particular sect. It is general. I am an old-fashioned orthodox preacher. I do not try to tickle anybody's ears.

Q. The broadcasting, then, you say, would be educational, religious, devotional and spiritual? A. Oh, yes. We have — message of an educational nature at times, at the present time. Of course, we formerly had much of that, when we had more time.

Q. Do you do any commercial broadcasting? A. None whatsoever. I think I would be better off if I did, we could not do that with WPCC. We would have to change our call letters. Our call letters stand for "We Preach Christ Crucified;" "We Praise Christ Continually;" and
304 "We Proclaim Christ's Coming." Most of the merchants would be so embarrassed with such call let-

ters that they would not give us any time.

Q. Have you anything else you want to tell the Examiner about your programs? A. I would just like to make a statement to show how we would be affected if we should be removed from the air.

When I took the church, before we installed the radio, the church was very much in debt. Shortly after I got there I began on this radio. Since the time we have installed the radio, we have more than trebled our audiences. Our budget now is two or three times what it was before we had the radio. We have raised our representation of missionaries in the foreign field from one to twelve, and we have been able to do a great deal of relief work. I think Thanksgiving Day we gave away $2,200, and we have been doing relief work, not only on Thanksgiving Day and Christmas, as people generally think, but at Christmas-time we raised $2,500 for the poor and $2,200 at Thanksgiving, and in addition to that, since the depression came on, I have been taking care of 34 families, representing over a hundred children, sending those children to the department stores and paying for their clothing. I have been furnishing from one to four quarts of milk every day since the depression started, for all these families. We have given out tens of thousands of garments. We have paid their doctor bills. We have employed a nurse, or a missionary to call at these homes, and while we deal with them physically we quote to them what the Lord said: "What shall it profit a man if he gain the whole world and lose his own soul?" and, of course,
305 we put the spiritual values first. I might say that I am not a regular preacher. I spent 17 years in the business world—real estate, law and some other things—and I try to handle it from a practical standpoint. I never spent any time in a seminary. We have taken care of these needs.

In addition to that, every Saturday night we have fed from 100 to 200 unemployed young men. None of them are hoboes. They are unfortunate men out of work, and I might say that we have never discriminated in this work against any particular religion. We have a conviction when we preach to them spiritually, but when we are feeding them, we believe that a Catholic, a Jew, or a Presbyterian, has the same need, and we put thousands of dollars into feed-

ing them. We are still doing that, and giving money also.

I might say, in regard to the work of our missionary that our missionary to these poor people was associated with her husband as a bootlegger in Chicago, and she heard the message over the radio, and was saved, and we put her through a missionary training school, paid all her expenses, and next week she leaves for South America as a missionary. She is a product of the radio programs.

I could cite scores of cases. We have a clinic, and everything else there, where divorced couples, drunkards, and ex-convicts, as well as the folks that are "up and out" can come. We live in the district where they are "up and out." We have brought about reconciliations, restored homes, and everything else, through the work of our radio station.

306 As to our finances, we would be very much crippled if we should lose our radio station. We were offered $800,000 for our church property, and I have said that if I had to give up the church or the radio, so far as real practical work is concerned, I would prefer to give up the church, and go in any kind of a room, rather than forfeit the radio.

I believe—and I am very modest in this statement—that we are doing more good for the United States Government and the City of Chicago than all the other 21 stations in Chicago combined. That is a very modest statement. I am talking about real good for the United States. You know, an ounce of prevention is worth a pound of cure. We generally get them after the law has dealt with them. You cannot legislate sin out of the human heart, but I can give an experience I had. When the Lord saved me, he saved me from all those evil habits, and kept me out of a great deal of trouble, and I work on the same prescription for my clients.

Q. You heard Mr. Johnson's testimony as to the character of programs which are being given over his station for the benefit of the citizens of Gary, particularly the foreign-born citizens. How do your programs compare with his? A. We tried the broadcasting of the foregin languages, and we lost all our radio audience. I do not believe it can be successfully worked in any district, but that is an opinion. We have, however, a greater number of foreigners in Chicago than they have in Gary. I might say that I am

not overstating the fact when I say that 20 per cent
307 of our income comes from foreign-born people in the support of our work. We find them, as a rule, contrary to a great many opinions—especially certain European foreigners—to be most religious people from a real spiritual standpoint—far more than the American people here, many of them. I think that is true. We are doing that work, and I might say this—I do not want to say anything against Mr. Johnson, but I have on file in the Commission's office many signatures on our petition, and letters from the Calumet District. We have a very large audience in the Calumet District on our station WPCC. I think Mr. Baldwin, the secretary of the Radio Commission, told me yesterday that he had received 44,000 signers, and I could get 400,000 if I thought it would do any good, although we are not trying to say that our message is popular with everyone. But we have these signers, and many of them are from the Calumet District.

Q. What do you mean by signers? A. To a petition asking the Radio Commission to act favorably upon our request, and our petition against WIBO, which is not in this case. Mr. Baldwin told me himself that he hoped it was nearly over, because they would wake him up at 2 or 3 o'clock in the morning with a telegram, which was not sent as a night letter, but a straight telegram, asking him to please give us favorable consideration. He said he did not want to be wakened at that time in the morning with telegrams, but he had had a great many of them. I think it is true that General Saltzman has had hundreds and
308 hundreds of telegrams from our listeners endorsing the work.

Q. Which you are doing in Chicago through the radio? A. Through the radio, yes. I want to say this, that it is customary with most of these radio stations to get an offering around Thanksgiving or Christmas for their work, but we carry it on every day in the year. We carry on this practical Christian work, as I said, in providing for more than a hundred children, and 33 or 34 families, and I want to say that not one of them live anywhere near our church. Not one of them is a member of our church, That is the radio fund. We take care of our own poor out of our church fund, but this is all through radio funds and through the members of our church. We have this nurse go around

and investigate each case, so that, so far as possible, we can be sure that we are not being preyed upon by imposters.

Q. Can you state offhand what your budget was last year? For your church, which you used in your church work, and your radio work, approximately? A. It is between $42,000 and $43,000, but that does not represent it all. That is just what we disbursed. Let me get this into your mind, that we get hearer over the air who wants to help a poor family, and we send the nurse to that ad-
309 dress of the hearer. We give her the address of a poor family. Then that family provides for the poor family. We have no way of estimating the thousands of dollars of benevolences, or the extent of the relief work that is done in that way, where we only act as a medium. But we disbursed, in our regular work last year, from our own treasury, between $42,000 and $43,000.

Q. Have you adequate funds to maintain this radio station in Chicago? A. I always say that when the Lord took me in the ministry, he spoiled a good business man to make a poor preacher. When I was 29 years old, I was making two or three times what I make now. As I said in my other statement, it costs me from $25,000 to $50,000 to go into the ministry, and I put business methods into it, of course.

Q. So, your church has adequate funds at all times to maintain the radio station? A. Yes. We have never had a deficit since I have been with the church We have always had a surplus.

Q. What is the state of the finances of the church now? A. We have a $10,000 fund set aside as a nest egg, you might say, toward the construction of our new station, and I think you realize our position, when we are in benevolent work. Every time we get $100 or $200, we give that away. We are not trying to make money. We are trying to
310 get money now to send more missionaries to the foreign field, but we have $1,800, I suppose, in each one of our two or three different funds, as a surplus for protection. All our bills are paid.

Q. You spoke of your church propetry. Did you say you had been offered $800,000 for it? A. We were offered $750,000 for it. You asked me about the bills. I just want to get in my annual report here. On the 27th day of December, we paid every bill for 1930, so we did not have a 5-cent deficit on the 1st of January, 1931. We always keep in the

clear on money matters. The board of trustees turned down $800,000. It was once valued at $1,000,000.

Q. That is, you were offered that at one time—how long ago? A. We were offered $750,000 two or three times, but that was before the depression. I do not know whether we could give it away now, or not.

311 Q. Are you familiar with the other radio broadcasting stations in Chicago? A. I checked up, of course, from many angles. I put in my statement yesterday that there are 20 stations there, and on Sunday I think the 20 stations broadcast an aggregate of something like 60 religious hours, but during the week in Chicago there are 512 hours being used, I think—approximately 500 hours—between 6 o'clock in the evening and 12 o'clock midnight, and not one single spiritual program out of the 512 except the two I am now putting over WIBO. There are 512 secular, worldly programs, and not one of a spiritual nature in Chicago, which has as great a need as any city in the world for what we are doing.

Q. Are there any other radio stations in Chicago doing the work which you are doing? A. WMBI—giving my opinion, again—has the greatest program in America. It is limited to daytime only. They are not able to go on at night. They are doing very much the same work we are doing, except for the relief work.

Q. That is the Moody Bible Institute? A. Yes. They have no evening hours. There are no evening hours of spiritual broadcasts in the city of Chicago of any kind during the week.

Q. Is there any other station doing the relief work? A. Just at Christmas and Thanksgiving time. I think now they have had to. There are five or six organizations in Chicago that are doing it, in a civic movement of some kind. I think there are others. I could not say, but

312 they are not doing it as we are. They are not sending a woman around, as we are in the work we are doing, and giving the combination service that we are. We deal with their souls while we are dealing with them physically.

Q. Is there any other station sending out missionaries to the foreign fields through its radio work? A. There is no work of that kind. WMBI have 3,600 missionaries among their graduates in the foreign field today. They

were all trained in their school during the past years, but as a result of their radio many people come to their school and prepare for the missionary work. But they do not support it. We support our own missionaries with our radio audience. They are in interdenominational work, and they send their own graduates back to their own churches to be supported by their own congregations.

By Chief Examiner Yost:

Q. I suppose you mean financial support? A. Yes. The Moody Bible Institute does not support them financially. They graduate them and send them back to their own churches, and their local congregations. I do not know of any station in the United States where the radio listeners are supporting the missionaries, outside of ours.

By Mr. Clifford:

Q. Doctor, if you know, how does the radio affect the attendance at your church services? Has the attendance at your services increased since you have used the radio, or decreased? A. Very much increased. I think it is a mistaken idea that radio broadcasting decreases the audience in any church. It will increase them, if you have anything to say to them. It is just like a restaurant.
313 People go where you feed them, and if you feed them what you are supposed to feed them, as a pastor, the attendance will certainly be built up. It has doubled our audience. Easter Morning I think we had 250 more than capacity, and we had 29 people accept the Lord in the old fashioned way, Easter Morning.

Q. Have you anything else you desire to tell the Examiner about the work of your radio station? Or the work through the radio? A. I think the Examiner knows, from the other records, and it is on record. I might say this. If you will give me these newspaper clippings, I would just like to show these to the Examiner, if it is agreeable. Here is the Evening News of Chicago, with the pictures of 60 of the children we are taking care of. (Indicating.) Here is a picture of the Thanksgiving Dinner, in the Tribune (indicating); and here is a write-up in the Chicavo Evening American, of our relief work.

314 By Mr. Clifford:

Q. What is this (exhibiting paper to the witness)? A. That gives a general outline of some of the work we are accomplishing. This is from a magazine that we issue, called "Unsearchable Riches." That is issued every once in a while. Here is a picture of part of our Sunday School, and the church, and some of our friends (indicating). This lady (indicating), is the lady who was engaged in bootlegging until she heard the message and was converted. We paid for her training for three years in a training school, and now she is going to South America.

I just wanted to add, if I may, before I go, that I feel that if we were put off the air, it would be the most serious damage, not only from a personal standpoint—so far as I am concerned personally, I can move tomorrow and get into another church with a radio. I am thinking of Chicago, and I want you to believe me when I say that it is not a selfish matter. I could go to a good many other churches, if I wanted to. I can select one. I had the offer of a church with a radio, and could go to a different district. The Lord has called me to Chicago, and the Lord gave us this radio. If the Lord takes away our radio from us, I will say, "Thy will be done." There are 40,000 people praying in this matter. I am fighting for the city
315 of Chicago in this case. I want to do all I can beforehand. After it is decided, I am fully resigned to it, and I will not have any comeback.

By Mr. Clifford:

Q. Would the work of the North Shore Church be seriously affected if it should lose its radio station? A. Most assuredly so. Some weeks we have 500 and 600 new listeners added to our audience, and if we can keep that up—I believe, in my own judgment, that one radio station can accomplish more for the cause of God and humanity than any 150 churches in any place combined. I do not think there is any doubt about that. I think it is the greatest instrument of God that has ever been put into the hand of man, but I think the devil is running away with it.

Q. When was your radio station established in Chicago? A. In July, 1924. I can remember quite well, because I

sat up for three nights until 2 o'clock taking tests. We then broadcast with WDBY. The people in the neighborhood used to say that those call letters stood for "We Delight Bothering You." We had 256 meters at that time, with 24-hour operation. About two years after that, we were assigned to 222.3, or 223.6, under the call letters WPCC, for which we applied. After nearly two years, we were called to Washington, and at that time we were given a division of time with the University at Madison, Wisconsin, and the University of Illinois, each of the three stations to have one-third time. When I got back to Chicago, I received a notice that we had been assigned to 560, and my license read, "one-seventh time." Then Mr. Pickard called me up from the Supervisor's Office and told
316 me that he had a recommendation to make when he got back to Washington. Then we received our license without any further notice, on a frequency of 560 kilocycles, and instead of one-seventh time, we received about one-eighth time, but the hours are specified in the license, as I gave them to you in the beginning. This is our eighth year of continuous operation.

Q. How many stations were there broadcasting in Chicago when your station was established? A. We were the sixth station on in Chicago, and the eighth in Cook County, I think. I think there were five. We went on before the Rainbow Garden. We went on as the sixth station.

Q. How long would you say, then, that the station has been on trial before the people of Chicago? A. Since July, 1924. It will be seven years in July. I went there some months before that. I went there in the latter part of 1923. It will be seven years in July.

Q. You are objecting to the removal of your station from the air? A. I support the proposition that I want to be maintained and get a little more than what I have. I wish there were enough for everybody to get just what he wanted. I have even said that to WIBO, and I would say that to Gary. I wish we could all get what we need. I am not against anybody. I do not care who they are. I just want to preserve my own rights.

Mr. Clifford: I would like to ask counsel if all
317 parties concerned are agreeable that it may be assumed that this station, the North Shore Church,

has sufficient equipment to carry on this work? Or will it be necessary for me to go to the trouble and time to prove the equipment which this station has? I know it was ruled in one case that so long as a station had been operating, it was assumed that they had sufficient equipment to do the work.

The Witness: I would like to make a little confession right there, if you will let me.

Mr. Clifford: Just a minute.

The Witness: Because I have another case pending.

Mr. Newman: Are you referring to mechanical equipment?

Mr. Clifford: Mechanical equipment, yes. We have proved that he has been broadcasting for eight years, and we have shown the work that he does. Is it necessary to tell what equipment he has, or can it be assumed that he has sufficient equipment to continue this broadcasting?

The Witness: I might say there, if I may, that I think they would be better satisfied than I am, because I am asking for a permit to build a new station. I have the money, and I am going to be disappointed until we do get our new station.

By Mr. Clifford:

Q. That application is pending, is it? A. That application is pending, and we will build it immediately after we are permitted to do so.

Mr. Newman: I do not think such assumptions are safe. However, it resolves itself into the question of whether or not it is a material issue in this case.

318 By Chief Examiner Yost:

Q. You have at present a 500-watt station? A. Yes.

By Mr. Clifford:

Q. Where is your station located? A. It is located in the church building. One reason why we want to move, of course, is that there are several buildings around us higher than the church, which cause a little interference. We will either have to raise our towers 50 feet, or move out, and if we raise the towers, it makes it a very difficult proposition on account of the city ordinances.

Q. Have you a radio engineer employed to take care of your station? A. Yes. We have a very competent man. Mr. Charles S. Baker was originally the engineer for a 50-kilowatt station in Dallas, Texas. He built the Wichita Falls station. He is a very competent man.

319 By Chief Examiner Yost:

Q. What can you say as to maintaining your frequency? A. Well, right across the street from us, within 50 or 75 yards of our transmitter, they have a loud speaker where they broadcast all day long. They have a loud speaker out in front, and broadcast different programs. I have asked him several times, after we put in our perfect crystal control—we have never deviated a hair's breadth that I know of, after we put in the crystal control, and I have asked him whether we produce any interference, and he said no. That might not be a fair test on 560, because there is nothing very close to us, but we have never had any complaint along that line.

By Mr. Clifford:

Q. Have you ever had any complaint from the Radio Supervisor? A. Never.

Q. Have you ever had any complaint from anyone? A. No, not since we have been under crystal control. Of course, we all used to run kind of wild in Chicago, but not with our equipment now. I want to say this, that when the bars were down, so to speak, we started in with a 2,500-watt station, and I went up to WIBO—I thought they had about the best station that could be put in for the money, and I went up to get the number of their generator, and so forth, and we started to duplicate it, and we put in a generator that has a capacity of 5,000-watts or more, and we put in all our equipment, bought the tubes, and everything, for a 2,500-watt station. Then the Commission suddenly stopped us, and we did not go on putting it in, and it has remained in statu- quo ever since then. We have been

320 waiting and hoping for some kind of a permit to go on with a larger station, but we do have satisfactory results. I have letters—they are on file with you—from Milwaukee, South Bend, Racine, and Wheaton, from a mechanical man at the college, all of whom have made tests of our station, and they say they can hear us very clearly.

But, of course, now there is a great deal of interference. Yankton, South Dakota, interferes with us, as they do with WIBO and other stations. They are somewhat removed. St. Louis interferes with us. The interference that comes from St. Louis is real interference.

Q. While you are not an engineer, you are the general manager of this station. Would you say that the equipment you have is sufficient to carry on the work which you have been carrying on? A. The proof is that it is doing it, with very little trouble.

321 Cross-examination of Dr. O'Hair on behalf of the applicant.

By Mrs. Willebrandt:

Q. You started your station in 1924. Did you have your church property then? A. Yes.

Q. Was your church built then? A. Yes.

Q. Was the mortgage paid off on it? A. No. At the time I went in there, there were three millionaires, and they had a little competition to see who would get it, I think, and they increased the mortgage from $26,000 to $50,000. They borrowed $2,500 to pay the back notes, and they borrowed $1,500 to pay the back salary of my predecessor, and there were 67 people present, and $3.69 collection the last Sunday before that. They were in pretty bad shape.

Q. It is all paid up now, is it? A. No. The mortgage is still on it. The mortgages have been increased, for this reason; I paid off the $4,000. I paid off about $5,000,
322 with the surplus $50,000. I am not responsible for that. So, when we renewed the mortgage month before last, when it expired, the $10,000 on the mortgage is the start toward the new station, and it cannot be spent for anything else.

Q. Is the church a separate corporation from the station? A. No.

Q. Are the funds of the station and the church together or separate? A. No; all together. They have never asked us to incorporate.

Q. Do your church expenses come out of the pooled account of the proceeds that you get from collections in the church, and from collections over the station? A. Yes, except in our benevolences. They do pool, but every dime

that comes in over the radio is put in a radio fund. But I tell them that 50 per cent of what we get in the offerings in the church is the result of the radio, because those people hear the radio message and come in. But we do give the station every dollar that comes in from a radio listener, and we put that in a separate fund called the radio fund.

Q. But the funds then are used for the payment of the interest on the mortgage, or charity work, or whatever may be needed? A. Let me say this to you. When we get through taking care of the poor and WIBO—you see, we pay WIBO several hundred dollars a month.

323 Q. How much do you pay WIBO? A. We just pay them their cost of operating. We give them time for time, and whatever it costs them to operate. It varies. It runs from $350 to $400 a month. When we pay them, then we pay for these missionaries, and the rest of the radio money goes toward the relief work.

Q. The radio money could be used on the church, too? A. Oh, yes.

Q. The church is not a regular denomination, with a definite governing board? A. It is purely independent.

Q. Is it incorporated? A. Yes; reincorporated in the State of Illinois. It was incorporated as the North Shore Congregational Church, and now it is the North Shore Church. Two years ago the new papers were recorded.

Q. Who decides on the use of the moneys that you get from the appeals over the radio? A. I think, since I got rid of these three millionaires, I decide about everything in the church.

Q. You have an executive board? A. Yes, and I am chairman of that board. I have a monopoly.

Q. How many are on the board? A. Fifteen.

Q. How often do they meet? A. They meet once a
324 month. They all come in on their knees, and have a wonderful time.

Q. I am now getting away from the religious side into the business side, because the Radio Commission and this record have to view it from that standpoint. Do you have any trustees created for the proceeds? A. Nobody is under bond, and this $10,000, I might say, passed unanimously, with the 15 men on the board. It was agreed unanimously that it could not be touched for any church purpose or any benevolent purpose. The motion is that it must go back

to the loan company, the trust company, in case we do not get our permit.

Q. Is there any periodic audit or report necessary? A. Yes. To the congregation. It is a democratic form of government in one way. That is, there are certain things on which the congregation can vote, and we submit to them certain things when they ask for them. Mr. Glenn Ingram is our auditor. He is an accredited public accountant, and he gives us an audit every year.

Q. That is given to your members? A. If they ask for it. It is available. But it is filed with our Treasurer, and is published. Here is the report. After this report
325 was given, the receipts, disbursements, and so forth, in a balance sheet, were signed by this accredited public accountant. Our books are always audited.

By Mrs. Willebrandt:

Q. Is there anyone who has to approve the report, or approve the expenditure of moneys, or the allotment of moneys? A. As Mr. Nelson and others have said, our church is not run like the average church. I think, on account of business ability, and so forth, they have delegated the power to me. I might say personally that I raise 75 or 80 per cent of the money, in a way, and I am chairman of both boards. There are two boards, one within the other. It is all done by mutual agreement with these 15 men, who are members of the board. I am chairman of the board.

Q. How much, currently, do you get in from the radio appeals? A. Let me get it here.

By Mr. Clifford:

Q. Are you reading a report? A. Yes.

Q. For what year? A. 1930.

Q. What are you reading from? A. This is our
326 annual report for January 1, 1931, or December 31, 1930, which is published by the church, in our weekly calendar distributed to the church people, and to all your congregation.

By Chief Examiner Yost:

Q. What is the date of the calendar? A. I just gave that. This is Sunday, January 11th, 1931. After the an-

nual meeting, everything was checked up. We have our annual meeting the first Sunday after the first Monday in the year. That is the way the constitution reads. The receipts for general expenses, including radio, were $22,980; Sunday School, $1,610; poor fund, up to that time $5,535. That was for three months. For tract and book distribution, $2,300.

Q. I am asking you, as nearly as you can recollect, what your contributions amount to month by month by
327 radio? A. Last year we broke even.

Q. Can you think back for the last few months? A. Yes, I will try to do that.

Q. Who cashes the checks, or endorses them? The money comes in by check, I suppose, does it not? A. Yes. The Treasurer. We have two treasurers, one for the general expenses, and one for the benevolences. The treasurer for the benevolences has charge of all the Deacon's Fund, the missionary fund, and the relief fund.

Q. Does not much of that money come to you because you are the one who is identified with the station, and who makes the appeals? A. I might say that 65 per cent of the checks are made to J. C. O'Hair. Suppose you dropped off tomorrow. Who would get the money? Have you set up any business arrangement for the perpetuation of your funds? A. Yes, in this sense. We have made arrangements with both banks that they can endorse my name.

Q. Is there any trustee named? A. Yes, we have a board.

Q. No; I mean, is there any legal trustee for the funds? A. We have one man as our treasurer. In this an-
328 nual meeting they got him to form a trusteeship whereby the funds would be taken care of in case of his death. But I never have the funds for an hour at a time. Our treasurer never leaves the checks. He is there all the time, and I give him all the funds, and I give him a slip every morning, which goes to the different departments, and he sends the sums——

Q. I want to know the ultimate fact as to whether you have legally created any assurance of continuity, such as a trust guardianship for these funds? A. For instance, when our church or station incorporated the last time, we designated three men who have charge of the financial

affairs of the church. They are called the Committee on Business and Finance.

Q. Have they been named trustees by the court? A. I was going to get to that. In case of any real estate transaction or legal matters, they shall be considered the trustees of the North Shore Church.

Q. Do they have to sign the checks and disburse the current funds that come in? A. No. The Treasurer does that. He happens to be on the board of trustees, but he does not sign it as a member of the board of trustees. He signs it as treasurer of the church, and he is elected by the congregation.

Q. Then, assuming, Dr. O'Hair, this to be the fact—which is not impossible, but is not an accusation against you, Dr. O'Hair—assume that you were removed tomorrow, and your trustee was dishonest. He could get
329 away with all the current funds, could he not? A. You mean the treasurer?

Q. Yes. A. Well, I don't leave him enough at a time to get away with, because the $10,000 is in trust. He cannot touch that.

By Chief Examiner Yost:

Q. Is he under bond? A. No, he is not under bond. There have been church treasurers, I guess, that have absconded, but we are very careful.

By Mrs. Willebrandt:

Q. I am looking at your legal status, and wondering whether people who send in money as a result of radio appeals, believe that they are giving it to a trust fund, duly established, where it has both continuity and enforceable legal security, or whether they know they are sending it in to an individual in whom they trust, and realize that it is an individual contribution. *Q.* I want to say that over and over again, in my announcements, I say, "If you want to do any strictly humanitarian work, if you want to send your money to some civic organization, do that" I have made the statement so often, that, believing the Bible as we do, we have asked that only people who are "born again" send us money, and the people who send us money are people who have such confidence in us and in the mes-

sage that we preach—just as we have in the treas-
330 urers that we appoint—that we are not running our church like an ordinary church. It is mighty hard for an outsider to understand that.

Q. Dr. O'Hair, I do not want to interfere with the way in which you run your church, but I am asking you, as a business man, if it would interfere in the slightest with the freedom of running your church as you do, if you had your funds handled by a trust duly created under the law? A. I think it would not affect our income five cents. I believe that the money that has come to our station is given by people who have confidence in the ministry of the pastor. That is my honest conviction. We would be glad to comply with the law.

Q. What would you say would be the relative
331 security or continuity of public service as between two churches run just exactly as yours now is, with the same policies and government, one having a bonded trustee handling funds that are solicited from the public, and the other not having that system, as viewed by somebody who does not know any of the parties involved? A. I tried to explain that the treasurer who received all the money, to whom the money is given, has been made legally to establish a trust fund, to protect him. The very point you are bringing up was brought up at our annual meeting, and, with the other treasurer and the board of trustees, he formed some kind of a guaranty that in case of his death there would be the assurance to the church that they would not lose any money.

Q. Also with respect to the $10,000 that you put aside? A. He has nothing to do with that. The $10,000 is in a trust fund, with the stipulation of the church Clerk and the Treasurer and the Board of Trustees, that it cannot be touched. That is in a trust fund. But this Treasurer is under a trust of some kind, some kind of a trust guaranty. I do not know just what it is. That was brought up the first of the year.

Q. In all the City of Chicago, there is no other station except WMBI, that is giving even half the religious broadcasts that you are, is that not true? A. I do not know. You must remember that we are not broadcasting on Sunday more than one-half of the time that we are licensed to

broadcast. There are some stations in Chicago which, I hink, broadcast three or four or five hours a day of religious programs.

Q. WMAQ has 37 hours a month. A. Of re-
332 ligious programs.

Q. Yes; and your application says that you have 50. So, it does appear to be more than half. That seems to be the nearest. A. WMAQ; but not during the hours I designated, the evening hours.

Q. How many hours are you asking for in your application, to which you refer? A. I have offered to relinquish or release five hours on Sunday, and I have asked for seven additional hours; only six hours in the week evenings, but from 12 to 1 o'clock each day at noon—19 hours in all.

Q. One question with respect to your service area. What area do you claim as your service area? A. I was interested in the Engineer's report. I have a Bible class that has been running for seven years in Milwaukee, and that is where I make my tests. I find in Milwaukee that 50 per cent of our people up there do not hear me, and about 50 per cent do. They have made tests in the last two months, and there is only one man that I know of that hears us clearly now, Sunday nights, under our present arrangement, on account of interference.

Q. What do you claim is your clear service area? A. I was going to say that we cover South Chicago in good shape.

Q. Are most of your members from South Chicago? A. Our members are scattered all over. You mean the people who attend?

Q. Yes. A. I would say that we have as many
333 people in our radio class from South Chicago as we have from the North Side. South Chicago is a very popular place with us. I do not mean South Chicago, Illinois. I mean the South part of Chicago, and that goes clear down into the Calumet District. We have a very large audience at a little place called Holland down there, and then down at 111th Street, and on down to Gary. We have quite a few people down there.

334 Q. Are you linked up with WIBO in any such way that your church work would be interfered with if you were allowed to broadcast over some other already-existing station in Chicago? A. That would only interfere

with the established audience on 560 kilocycles if it were changed. I know several men who have changed to a different frequency, and, of course, they have lost their audience for a certain time. Mr. Barnhouse went off WMAQ to Mooseheart, and he lost four-fifths of his people. I can only state by that one case. I do not know. I would say this if Mr. Nelson were not here. If WMAQ would give me a broadcast two or three evenings a week, or some station like that, I would be glad to make a change.

Q. Who passes on the cases that you give money to, which you get as a result of your radio appeals? A.
335 This lady here that I was telling you about, our nurse, Mrs. Roach.

Q. She gives out the money, or she recommends that the money be spent? A. No. The treasurer gives out all money. She recommends that it be spent in a certain case. She makes a personal investigation of each case, and brings in a written report, and then we disburse the money on her recommendation.

Q. How much time, and what kind of time, do you give to the station, Dr. O'Hair? A. I average about 17 hours a day.

336 Q. Is that in broadcasting? What time is spent in the church work, and how much time is spent in connection with the radio? A. I would say my work would be reduced 60 per cent if we got rid of the radio.

Q. Do you go on the air every day? A. Every day at 12 o'clock, 365 days a year.

Q. Then you speak for how long? A. 30 minutes.

Q. During that 30 minutes do you describe the work of the church, and make an appeal for funds? A. No. That is over WIBO. They do not allow it. That is all Mr. Nelson's time. I pay for that time. I never go to an individual and ask him for a penny. I do not believe in it. I never go to a man individually. I make a general announcement. I say, "As the Lord lays it upon your heart, send it in, and if the Lord does not put it there, we don't want it."

Q. What other time during the day do you broadcast, outside of the 30 minutes in the middle of the day? A. Monday from 7 to 7:30, I speak on prophesy, the coming of the Lord. On Tuesday, we have a musical program. I

am only the announcer. On Friday, from 6 to 6:30, I am on. That is all I am on during the week.

337 Cross-examination on behalf of WIBO.

By Mr. Boyd:

Q. I merely want to ask one question, and that is to clear the record, as to the amount you pay WIBO. Is it your understanding that it is a nominal sum, which meets the cost to WIBO of rendering that service to you, and not for the purpose of profit so far as the station is concerned? A. The agreement was—we can hardly broadcast our station, which has high power, for any less than we pay them. I would say that. It is a very nominal sum, only $15 an hour, because we give them our time, which is worth just as much as their time. It is an exchange of time.

Q. The line charges are paid out of that, are they not? A. No. We pay the line charges.

338 By Mrs. Willebrandt:

Q. Then, under the present arrangement, WIBO has practical control of the station, and you pay for the hours that you agree upon? A. Oh, yes. I broadcast from the church over their transmitter.

Redirect examination.

By Mr. Clifford:

Q. Mrs. Willebrandt has gone into the conduct of the business of the church. Have you been pastor of any other church before this? A. One, yes.

Q. This church is a corporation, you say, organized under the laws of Illinois? A. Yes.

Q. What salary do you get? A. I am getting $450 a month now.

339 Q. Being the pastor of the church, you are subject to carry out the business arrangements as laid out by the church organization, is not that right? A. Yes.

By Mrs. Willebrandt:

Q. How many hours do you run your station, Dr. O'Hair? A. I give them four and a half hours, and we

have a license for 12 hours, which would leave us seven and a half.

Q. Do you run it actually now seven and a half hours? A. Yes.

340 Cross-examination on behalf of the Commission.

By Mr. Newman:

Q. Do you receive any money from the church besides your salary? A. I marry some folks once in awhile.

Q. From what fund is your salary paid, doctor? A. I get my money from what is called the church fund. That is the offerings Sunday morning and Sunday evening; and from the church membership, principally.

Q. You say about 50 per cent of that comes indirectly from the radio? A. I say this, that if I bring in 100 extra people over the radio, and they put in $5 or $2 apiece in the offering, the radio is directly or indirectly responsible for that increase.

Q. The funds which come directly as the result of your radio broadcast do not contribute to your salary? A. If we had a deficit in one and a surplus in the other, sure.

341-344 It is only one corporation. If I say to the people "Send in your money and every penny you give will go to a missionary," they get it, and if I say it goes to the poor, it goes to the poor. If I say it goes to maintain the radio station, it goes there. In that way it is pretty hard to divide the funds.

345 **Frank B. Falknor**, heretofore called as a witness on behalf of the applicant, was recalled and testified further as follows:

Direct examination (continued).

By Mrs. Willebrandt:

Q. Mr. Falknor, you said you were familiar with the mechanical equipment of Station WJKS. Will you please state what type of modulation the station has? A. They have what is ordinarily called low level modulation, and it is arranged so that they can secure a high percentage of modulation.

Q. Have you made any observation of the reception from WJKS, other than that in your home, which you
346 described when you were on the stand before? A. Yes. I made observations on April 20th and 21st, between the hours of 7:30 and 9 p. m.

Q. Just state where you made these observations, and how you conducted the observations, with what equipment, and what your results were. A. The observations were made on the circumference of a circle having a radius of approximately 30 miles, with the location of WJKS' transmitter as the center of the circle. The observations were made with a field intensity measuring set, and they really consisted of two distinct observations. One was listening to determine the amount of audible interference present, and another was a measure of the signal strength of WJKS. One location was on Indiana Highway designated as No. 53, about 30 miles south of WJKS. The signals from WJKS at this point were about 1.8 millivolts per meter. There was audible interference, but the interference was at too low a level to measure. However, the interference was definitely disturbing, and I would say detrimental to good reception.

On April 21, 1931, also between 7:30 and 9 p. m., another observation was made 30 miles southeast of WJKS, on Indiana Highway No. 43. The signal at that point was 3 millivolts per meter, and the interference was also capable of being measured at that point, and appeared to be coming at right angles from the line from which the signal from WJKS was coming, or approximately at right angles, and the interference at this point measured about .2 millivolts per meter. This interference was in the nature of a beat note, and, of course, was quite loud, It was very annoying, and had a frequency of about 100 cycles per second,
347 and did the greatest damage to speech or announcements. It seemed to affect them to a greater extent than it did music. Another observation was made at the Western entrance to the town of Laporte, Indiana, which is also about 30 miles east of WJKS. The signal was almost indistinguishable at this point, due to interference which was received with the signal.

Q. The signal of WJKS was almost indistinguishable? A. Yes. The interference caused it to be so. Measurement was made at this point, and the combined level of WJKS and the interference was about 1½ millivolts per meter.

At this point there was about a 100-cycle per second beat note, from an unidentified station, and a low flutter in the reception of WJKS, of about 10 cycles per second, which I believe was caused by some station almost in zero beat with WJKS, that is, operating on practically the same frequency, and almost exactly the same frequency, with apparently a difference of approximately 10 cycles per second, which caused the signal received to have all the characteristics that might be described as a flutter.

Q. That was at a point to the eastward of the 30-mile radius from the transmitter of WJKS? A. That was almost directly east.

By Chief Examiner Yost:

Q. Just what do you mean, in lay language, by a 10-cycle beat note, or a 100-cycle beat note? A. It was a 100-cycle per second beat note. It might be described by saying that it was a constant tone which would correspond to about 100 cycles per second. Of course, from an engineering standpoint, you become accustomed to describing every
348 note you hear as being approximately so many cycles per second, and this corresponded to a musical note that would be struck on the piano by some key. It was fairly constant in amplitude, and constant in pitch.

Q. What does the number of cycles have to do with the objectionable feature of it? A. If the beat note were, say, 20,000 cycles per second, that would fall outside the range of the capability of the ordinary receiver to transmit sound to the ear, and, of course, it would not be objectionable because the ear would not know that such a beat note existed, but if the beat note falls within the range of the ear, and bears no relation to the sounds that you should hear and wish to hear, then it is irritating.

Q. How many cycles per second do you regard as objectionable? A. With good receivers, beat notes from about 10,000 cycles per second, on down to practically zero, are objectionable. On most receivers, from about 75, or perhaps 50 cycles per second on down, the sound may not be transmitted to the ear, due to a deficiency in the receiver. However, when two stations are operating on the same channel, and are practically on the same frequency—meaning, say, within 10 or 15 cycles per second—you get an addi-

tion and cancellation alternately of the signal strength of the station you are trying to hear. That is, the interfering station at one period of time will boost the apparent signal; at another period of time, it will decrease it, which causes a tremulous effect on the signal you are trying to receive. Is that clear?

349 Q. It is not quite clear to the Examiner, not being an engineer, as to the relation between the rapidity or otherwise, and the strength or the force of it, if you get what I mean. What does the rapidity of it have to do with the force, or with the ability of the interference to be objectionable? A. That might be elaborated at great length, but interfering frequencies above certain limits, of course, never get to the ear, owing to receiving sets' deficiencies. Between certain limits, those interfering sounds do get to the ear, and just what frequency in cycles per second is the most irritating, I think depends a great deal on the listener, and also on what type of program he is hearing at the time. Low frequencies, from, say, about 3,000 cycles to 75 cycles, will very greatly disturb the reception of speech, while frequencies, say, from 4,000 or 5,000 cycles to 75 cycles, may greatly disturb both speech and certain types of music.

Q. The thing that is not quite clear to the Examiner is, why a frequency of 100 cycles may not have such force as to be objectionable. I do not understand the way you measure what the number has to do with the power. A. The number has no connection with the power. It is merely a method of identifying the character of this interference.

By Mrs. Willebrandt:

Q. You made other observations, did you, on these dates in question? Do you have others that you had started to testify about? A. No. That is all those observations.

350 Q. You listened at other times and in other places in the eastern and southern circle, particularly, of the good service area of WJKS, did you not? A. No. This is the only time I have listened in that area.

Q. How often have you listened on the eastern side of WJKS, in the radius of good service, as defined before in this case? A. That is the only observation I have ever made on the eastern side.

Q. What are the observations that you testified to on Saturday? A. That was made in Chicago, which is northwest, I believe.

Q. But within a 30-mile radius of WJKS? A. I believe that is approximately 30 miles.

Q. What would you state was your opinion of the reception of WJKS, within this area, such opinion being based upon the observations you have described you made? A. There is sufficient signal strength there to give what we would term good reception, were interference not present; but it is my opinion, as far as the signal represents entertainment to me, that at times, especially, there is interference on that station which is objectionable, and deteriorates the value of the program, at least to me as a listener.

351 Q. In your opinion, what is that interference caused by? A. In my opinion it was caused by some other station operating on the same channel, or rather, assigned to the same channel.

Q. Do you know what the channel is, on which the station at Syracuse, WFBL, operates? A. I understand, according to the records we have available, that it is 1,360.

Q. Do you know what the mileage separation is between WJKS and WFBL? A. No, I am not familiar with the exact mileage.

Chief Examiner Yost: It is in the record.

By Mrs. Willebrandt:

Q. If you found that the mileage separation was 600 miles or thereabouts, and the power of WFBL were 1,000 watts, what would you say would be the result in the good service area of WJKS? A. That can only be determined by experiment. That is, such a hypothetical condition might be set up and give entirely satisfactory service, while in actual practice it might or might not. In this particular case, due to the direction from which the interference was entering the area in which I made measurements, I believe that the signal was coming from the east, and in all probability was coming from the station in Syracuse, which is a thing that is not at all surprising.

352 By Mrs. Willebrandt:

Q. What would you state, Mr. Falknor, should be the mileage separation between such stations as WJKS and

WFBL, in order to prevent interference? A. I can only state this in that connection, that when two stations are put on the same channel, such as the Syracuse station and WJKS, it should be determined experimentally whether or not the two will interfere. There are no two cases in which the same results can be accurately predicted.

Q. Would you say that 600 miles is probably too close, as far as the law of averages is concerned, or not? A. No. In making an estimate for the placing of two stations, offhand, without any information available, I would not think it was, but it is quite likely to be.

Q. Do you happen to know whether it is closer, or the exact distance, or farther than the distance recommended by the Radio Commission? A. As I remember it, it is closer than the recommended separation.

Q. What, in your opinion, would be the result, in so far as the interference which you have described is concerned, with which you state you are familiar, in the service area of WJKS, if it were operating on a frequency of 560? A. If it were operating on a frequency of 560, I would not expect to get interference. For the reason that over a
353 period of about a year I have listened at quite frequent intervals to WIBO, operating on that channel, and in all my observations it is quite free from interference and is capable of giving excellent service.

Q. You live within the good service area, as it has been described in the records in this case, of WJKS, do you not? A. Yes, I believe I do.

Q. I will ask you to look at this map, Mr. Falknor, marked for identification as Applicant's Exhibit No. 2, and state what it is? A. This is a Rand-McNally map of the State of Indiana, showing the excellent service areas of Indiana stations where the radius of excellent service is as defined by the Federal Radio Commission in the WGY case.

Q. Is that definition that you have given as defined in the WGY case, practically what Mr. Ring gave on the stand here Saturday? A. For some powers it is exactly the same, and for some there is a slight variation.

Q. Is there any deviation in the powers that are marked on this map? A. There may be, in the large circle here of WOWO. I do not believe there is in any of the others.

Q. Would the variation in the circle of WOWO be slight, or great? A. I believe a rather small percentage.

Mrs. Willebrandt: I will offer this as Applicant's Exhibit No. 2.

354 (The map referred to, Rand-McNally map of the State of Indiana showing excellent service areas of Indiana stations, was marked "Applicant's Exhibit No. 2," and two copies thereof are on file with the Commission.)

Mrs. Willebrandt: Let the record show that in the testimony of Mr. Ring and of Mr. Johnson, the map that was used was not Applicant's Exhibit No. 1, but Applicant's Exhibit No. 2.

By Mrs. Willebrandt:

Q. Examining this map, please state what stations give excellent service in the Gary or Calumet region on Lake Michigan in Indiana? A. WJKS——

Mr. Cook: Is he qualified to state that? Has he made tests down there on all these stations, or is he just assuming it?

Mrs. Willebrandt: There is only one.

Mr. Cook: He is now testifying about other stations giving excellent service in Gary.

Mrs. Willebrandt: Yes.

Mr. Cook: Has he made tests of the other stations in Gary, or is he just assuming it from his general knowledge?

Mrs. Willebrandt: This testimony is from the map, Mr. Cook, based upon the defined service area, as defined by the Commission. It is not based upon tests that he has made.

Mr. Cook: Why should he repeat what the Commission has stated in its general conclusions as to where the excellent service extends from the Chicago stations? Is he not just repeating what somebody else has prepared, as a general conclusion?

355 Mrs. Willebrandt: Yes. He is totaling the service that Gary gets.

Mr. Cook: Is not that in the record?

Mrs. Willebrandt: Not in this form.

Mr. Cook: Is not this form rather objectionable, in the sense that he is just repeating what others have concluded?

Chief Examiner Yost: The Examiner thinks it is admissible, and he may answer.

The Witness: According to the method by which the maps were made, the only station in Indiana giving excellent service to the large portion of the Calumet District, is WJKS. Perhaps WWAE, a 100 watt station at Hammo d, would give excellent service to a very small portion. Hammond is right on the line between Illinois and Indiana.

Q. Would any excellent service reach Gary from the Ft. Wayne station? A. Not according to the basis on which these maps are made.

Q. Will any excellent service reach Gary from Indianapolis? A. No.

Q. I show you another map here. Will you describe what that is, who made the map, under whose direction the map was made, and what it purports to show?

356 A. This is also a Rand-McNally map of the State of Indiana, which was prepared under my direction, showing the good service areas of Indiana radio stations, where the radius of good service area was taken as defined by the Federal Radio Commission in the WGY case.

Q. You say you had this map prepared under your direction? A. Yes.

Q. The facts that are purported to be shown here are true, to the best of your knowledge? A. They are, to the best of my knowledge.

Mrs. Willebrandt: I offer the map in evidence.

Chief Examiner Yost: It may be admitted.

(The map referred to, Rand-McNally map of the State of Indiana, showing good service areas of Indiana radio stations, was marked, "Applicant's Exhibit No. 3," and two copies thereof are on file with the Commission.)

By Mrs. Willebrandt:

Q. What Indiana stations render good or fair service to Gary or the Calumet District? A. The Indiana stations rendering good service on this basis of estimation, in the Calumet District, would be WOWO, Ft. Wayne; WWAE, at Hammond, and WJKS, at Gary, and some service from a station at Laporte, Indiana, with whose call letters I am not familiar. I believe it is a 100-watt station.

Q. Does either the small Laporte station, or the Hammond station, cover, even with good service, or fair
357 service, the whole of the Calumet region? A. It does not cover with good service the whole of the Calumet region.

Q. So far as Indiana stations are concerned, then, the Calumet region is served with good service only from Ft. Wayne and from WJKS, as a whole? A. As a whole, yes.

Q. You have made considerable examination, in your years of experience as a radio engineer, of the reception from stations of various types and kinds—that is, full time, part time, high power and low power stations, have you not? A. I have.

Q. From the standpoint of reception, will you state what, in your opinion, is the comparative value as between a full time and a part time station? A. I believe that the full time station is of considerably more value from the listener's standpoint by virtue of the fact that you can tune in on that station at practically all reasonable hours of the day, while a part-time station is rather difficult to follow in its schedule, and tell just when you may expect the station on the air, and consequently you may not even bother to tune in on that station, especially if there is other service available which is full time.

358 Q. Mr. Falknor, has Indiana very many full time stations? A. Not according to all the records that are available to me.

Q. You are referring now to the Radio Commission's records? A. Yes.

Chief Examiner Yost: Let him state how many full time stations, it has, if he knows.

The Witness: There are four.

By Mrs. Willebrandt:

Q. According to the excellent service area, as you have previously described it, and on the same basis that you have made these other maps, have you recorded the areas receiving full time reception from an Indiana station in Indiana? A. Yes, I have.

Q. I show you this map and ask you to describe what it is. A. This is a photostatic copy of a map made from a Rand-McNally map. This is just an outline of the State

of Indiana, in which the cities are accurately located, in which full time stations are placed. They are a 100-watt station at Terre Haute, Indiana; a 100-watt station at Connellsville, Indiana; a 100-watt station at Anderson, Indiana; and a 100-watt station at Ft. Wayne, Indiana. These circles again show the excellent service area of the full-time stations; that is, the radius of excellent service, as defined in the WGY case.

359 By Chief Examiner Yost:

Q. The witness testifies that that is a true and correct copy of what it purports to be? A. Yes.

Mrs. Willebrandt: I will offer that in evidence.
Chief Examiner Yost: It may be admitted.

(The paper referred to, an outline map of the State of Indiana, showing full time stations, was marked, "Applicant's Exhibit No. 4," and two copies thereof are on file with the Commission.)

By Mrs. Willebrandt:

Q. From your studies, and from these maps, Mr. Falknor, you may state for the record whether, from an Indiana station, Indianans living in the Calumet District receive any reliable, continuous service from any Indiana station? A. They do not receive any continuous service, on the basis of full time radio stations in Indiana.

Q. In other words, they have to keep a time schedule to have a chance to listen to an Indiana station? A. That is correct.

Cross-examination on behalf of WIBO.

By Mr. Boyd:

Q. You stated, Mr. Falknor, that you felt that WIBO was on a frequency where there was less objection from the standpoint of cross-talk? A. I said interference. I believe they are on a better frequency, in that District, from the standpoint of interference, than WJKS.

360 Q. What observations did you make to determine that fact? A. Just over a period of a year, in my home, listening to WIBO's programs from time to time.

Q. Have you ever heard objectionable heterodynes on that frequency? A. No, I never have heard them on that frequency.

Q. You never heard the heterodyne, then, produced by KLZ, of Denver? A. No, I have not.

Q. Knoxville, WNOX, is 440 miles from Chicago. Would you expect as objectionable interference from that station on 560, if WJKS were operating on that frequency, at a distance of 440 miles, as from Syracuse, on 1360 kilocycles? A. No, I would not, based upon the fact that I do not hear the interference now.

Q. Based upon any other facts? A. That is the only fact, because experiment really proves the case.

Q. You think the matter of miles with reference to the interference is not a factor? A. The matter of miles is a factor, but with such a small move it would be difficult to predetermine accurately whether the interference would be increased or decreased, because there would be a change of location, and a change of general operating conditions.

Q. The objection, then, to WFBL is that it does produce, in your judgment, interference, and you do not base that objection on the fact of the mileage separation?

361 A. The matter of miles is important, but it is not the sole determining factor as to whether interference will exist, or will not exist.

Q. Did you make any scientific investigations on 560 kilocycles during this period to determine interference? A. No. It was purely as a listener in my home.

Q. What kind of a receiver did you use? A. I believe it is called the pre-selector type. I believe the stations are differentiated before they go to any vacuum tube. That is, the tuning arrangement precedes any amplification.

Q. Do you find that that receiver receives the frequency of 1360 with the same reliability that it receives 560? Have you made any investigation to determine that? A. I have made no investigation on this receiver.

Q. It might be possible, then, that on 560 kilocycles the receiver you were using would not receive the signal strength on 560 to the same extent that it does on 1360, and thereby not produce the interference? A. It might not receive the signal strength. However, the interference is a matter of relativity, and the reception from a distant station and from WIBO should bear the same relation, regard-

less of the relative sensitivity from one end of the dial to the other.

Q. That is true of the type of receiver you were
362 using? A. That should be true of any receiver.

Q. Did you take field strength measurements on the various Chicago stations to which you referred on your map, on two circles in the Gary region, and if so, when and in what manner? A. I did not take field strength measurements in the Gary region of any station with the exception of WJKS.

Q. Have you taken field strength measurements of WIBO in or around Gary? A. Not in or around Gary.

Q. Have you taken field strength measurements of WIBO at any other point? A. I have taken it in Chicago, at my place of business.

Q. I want to know what comparison you made to determine the accuracy of calibration. A. The field strength measuring set used is so constructed that the accuracy depends on the measurement of a one-ohm resistor, and on the calibration of a meter, which meter was purchased from the Jewel Electrical Instrument Company, with a guarantee of accuracy, and the resistor was measured on a Leeds-Northrup Bridge, which I believe to be accurate.

Q. I will ask you to describe in detail the field strength instruments that you used in making the measurements on April 20th and 21st. A. This field strength set consisted of two major parts, one, a Western Electric
363 4-B superheterodyne receiver with a loop antenna; and a volume indicator attached to the audio amplifier of the receiver. The loop receiver had an extra oscillator in it, with which you could produce a beat note with any incoming signal which you wished to receive, or did receive. A one-ohm resistor was placed in series with the loop antenna, and when a signal was to be measured, the loop was turned to receive the maximum signal, which maximum was indicated by the volume indicator in the output of the receiver. This reading on the volume indicator was noted, whatever value it happened to be, and then a local oscillator, in a shielded container, was tuned to zero beat with the station under measurement. The loop antenna was then turned at right angles, or the zero signal position for the station from which the measurement was made, and a signal substituted in the receiver by introducing it through

this one-ohm resistor to give the same deflection of the volume indicator on the output of the Western Electric receiver, as was given by the station under measurement. The current was then measured, which it was necessary to pass through the one-ohm resistor to give the same deflection, and this current times the one-ohm gave the voltage necessary to be introduced into the receiver from the local oscillator, which was equivalent to the voltage introduced into the receiver from the station under measurement.

Q. Did you have a micro-ammeter in the plate circuit of the receiver detector? A. I did not.

Q. Or any other method of determining the input
364 volume? A. As I stated, I had a volume indicator—that is, a meter and a vacuum tube—so connected that they would give an indication of the signal that was entering this receiver from the station under measurement.

Q. You depended solely on that for accuracy? A. The accuracy of that instrument did not enter into the calibration, except the instantaneous accuracy. If that meter read 4, which might be any arbitrary figure, it made no difference whether the next day it read 4 or 5, for the same intensity, because it was only an instantaneous indicator as to the signal level, and what this deflection meant was determined by the oscillator which I carried locally, the energy from which I introduced into the receiving set through a meter and the resistor, so that for each reading the device on the receiver was calibrated.

Q. What are the field strengths, in microvolts per meter, of the stations which interfere at present with WJKS, in a nine-mile radius? A. I made no measurements on those stations.

Q. And at the 30-mile radius? A. It was impossible to measure the interfering stations when WJKS was on, so I made no measurements.

Q. Did you measure it when WJKS was off the air? At the time WGES was on the air, did you make any field strength measurements in Gary? A. No.

Q. What is the field strength pattern of WJKS on 1360? A. I never made a field strength pattern of WJKS.

Q. What is the field strength of WGES on 1360, in
365 Gary? A. I have never made that.

Q. For how long a period did these interfering

stations maintain the level of field strength you have indicated? I want to know whether you know what it was during a period of four hours, on two days. You said that you made these measurements from 7 to 9 p. m., on two days? A. Yes.

Q. Have you made measurements at any other time, and can you indicate what the field strength is at other times, or at any other time? A. No; I have not made any other measurements except those indicated.

Q. Do you know the ratio between desired and undesired signal strength on adjacent frequencies which is accepted as being necessary to avoid objectionable interference? If so, state it. A. No; I do not know of any such value that is accepted by everybody.

Q. Is there such accepted by you? A. No. I make my determination on the basis of what I can actually hear on the receiver, which is, after all, the criterion.

Q. Have you measured the field strength of any Chicago stations in Gary? A. I have not.

366 Q. Have you measured the field strength, in microvolts per meter in Gary, of stations on 550 and 570 kilocycles or on any other frequencies in the band besides WJKS on 1360? A. None except WJKS on 1360.

Q. What is the normal operating plate voltage, in current, of the power amplifier of WJKS? A. At the time I made the inspection, it was 4,000 volts; .75 amperes.

Q. What is the input to the power amplifier? A. 3,000 watts.

Q. Taking thirty-three and a third percent efficiency, as allowed by the Commission, this would make the output what? A. 1,000 watts.

Q. What is the antenna resistance on 1360 kilocycles? A. I have never measured it, so I cannot state.

Q. What is the antenna current? A. I don't remember what the antenna current was.

Q. I hand you WIBO Exhibit No. 1 for identification, which is the application for renewal of broadcasting license of Radio Station WJKS, filed in September, 1930, and ask you what the application shows with reference to the antenna resistance of WJKS, according to the information contained in the application? A. It says 17 ohms in this application.

Q. And the antenna current is what? At night time? A. 6 amperes.

367 Q. Then the I^2R is 36 times 17? A. That is correct.

Q. Equals what? A. According to this, it is about 610 watts, roughly.

Q. Did you check the performance of the power amplifier of the transmitter of WJKS? A. Just from observation of the meters.

Q. Did you check the meters to see that they were accurrate? A. No.

Q. Did you make any other scientific check to determine whether or not the meters were functioning as they indicated? A. No. The station was on the air at the time the inspection was made, so that it was not possible to make any check as to the accuracy of the meters.

Q. But the station was off the air during the day, on April 20 and April 21, at certain periods? A. Yes.

Q. You were not about the transmitter when it was off the air? A. No. I was there while it was operating.

Q. How do you account for the excessive loss in the power amplifier? A. Well, I do not account for the excessive loss. I could not without making some examination to see whether the antenna resistance, as stated here, is correct or not.

Q. What is the effective height of the antenna at WJKS, if you know? A. I do not know. That would also have to be determined by measurements, which I have not

368 made.

Q. That can be best obtained how? A. It can be best obtained by means of field strength measurements.

Q. What is its radiation resistance? A. The license states it to be 17 ohms. Other than that, I have no information on the radiation resistance.

Q. You mean the application? A. Yes, the application.

Q. Do you know what the power actually radiated is? A. Not what the power actually radiated is.

Q. How much energy is usefully radiated as a ground wave? A. I have not determined that.

Q. How do you account for the excessive loss from a thousand to 612 watts? A. I stated before that I cannot account for it.

Q. Do you recommend this design of antenna as the best type of antenna which engineering practice would recommend? A. It is not the best type of antenna that could be erected. However, it is the best type that could be erected with the towers that are available.

Q. What are the actual dimensions of the antenna? A. I am not familiar with all the actual dimensions of the antenna.

Q. Are you familiar with any of the dimensions of the antenna?

369 The Witness: I do not remember any of the dimensions of the antenna. I never went into the actual dimensions of it.

Q. You simply recall that it is inefficient? A. I simply recall the general design, shape, and type of towers, and spacing.

Q. How far is the antenna proper from the

370 towers? A. I believe it is about 15 feet.

Q. Are the towers insulated? A. I believe they are not.

Q. Do you think they should be? A. That can only be determined in each specific case by a trial.

Q. What proportion is horizontal? A. I cannot state that accurately.

Q. How much energy from the horizontal is radiated usefully as a ground wave? A. It is usually considered that none of the radiation from the horizontal portion is useful as a ground wave.

Q. What are the losses to be expected in the antenna? A. That is another rather difficult thing to answer, inasmuch as you cannot tell what the losses to be expected are until you actually measure them and determine what they are.

Q. What is the natural wave of the antenna? A. I do not know what the natural wave of the antenna is.

Q. How much energy is lost in harmonics at the station? A. I have not determined that, either.

Q. How much current is absorbed by the towers? A. I have not determined that.

Q. What is the effect of having towers so close to the antenna proper as in the case of WJKS? A. In some cases the effect is to absorb energy, and in other cases the absorption is practically nothing.

371 Q. Would you not expect abnormal dielectric or eddy current losses in the antenna and the towers? A. The towers are not a dielectric. They are a conductor. So, I would not expect any dielectric loss.

Q. Would not a reduction of resistance loss be obtained if your towers were separated farther from your antenna proper? A. In general that is to be expected. However, each specific case brings a surprise, usually, on that score. It can only be determined by measurements.

Q. What is the ground resistance at the present site? A. I have no idea of the ground resistance, never having measured it.

Q. What is the character of the ground in other sites in the vicinity of Gary? A. Most of that territory that I have seen is sandy.

Q. Did you make a survey of various sites in and around Gary, from a scientific engineering standpoint? A. No. I have not made any particular survey. No one has requested it.

Q. In your opinion is the transmitter installation, including the antenna system, at WJKS, susceptible of improvement in so far as concerns the useful radiation on 1360 kilocycles? A. That is a matter of individual engineering opinion. It might be capable of improvement. However, after the improvement was made, one might not find that he had gotten the results he had estimated
372 he would get.

Q. Could not the losses be reduced considerably by increasing the power amplifier efficiency from 20 per cent to something nearer 33⅓ per cent? A. I have no information on what the actual efficiency of the power amplifier is.

Q. In increasing the antenna efficiency, either by increasing the effective height, changing the proportion of horizontal to vertical, or separating the towers farther from each other, could not the losses be reduced considerably by increasing the antenna efficiency, either by increasing the effective height, changing the proportion of horizontal to vertical, or separating the towers farther from each other? A. There are several types of losses in antennæ. Some of those losses might be reduced. Some might be increased. I do not know what losses you refer to.

Q. You spoke of a heterodyne on 1360 kilocycles. Could not the interference caused to WJKS by heterodyne, be

reduced considerably if all stations now interferring on 1360 kilocycles used precisely frequency control, enabling the maintenance of frequency to within plus or minus 50 cycles? A. No.

Q. Could not some of the interference from Syracuse be reduced if the latter used an antenna system which reduced sky wave radiation? A. It is generally considered that the horizontal radiation is that which produces inter-
373 ference at great distances, and whether or not they could change their antenna to produce less interference, due to changing the ratio of ground and sky wave, is a matter that can only be determined by experiment, and rather long-drawn-out experiments.

Q. Would not the objectionable character of the interference you report be reduced by an increase in the ratio of field strength from WJKS over that of the interference? A. Yes; if the ratio could be increased sufficiently.

374 Mrs. Willebrandt: May I interrupt long enough to ask Mr. Boyd if in his last question he assumed also a change of the Syracuse station?

Mr. Boyd: I first assumed that the Syracuse station might change its antenna system.

By Mr. Boyd:

Q. Were you employed for the purpose of examining this plant and its situation in Gary with reference to coming here and testifying as an engineer? A. Yes; not an inspection of the plant, but in connection with observations of interference that I designated as having been made on the circumference of the circle——

Q. Is it not true that in order to give the engineering facts upon which this Commission may rule, there is certain other information and there are certain other examinations that could be made as to the matter of the antenna system and all the other parts that would enable you to give this Commission information of an accurate character upon which this Commission may rule?

Mrs. Willebrandt: I object to that. The question is improper and is based upon a fact that is not in the record. This witness is not advising the Radio Commission. He is just stating what he saw and what he did.

Chief Examiner Yost: The Examiner is of the opinion that that is not a proper question.

By Mr. Boyd:

Q. Then may I ask you if you believe that the tak-
375 ing of field strength measurements at a point on a radio 30 miles distant from WJKS and indicating that you believe that certain interference is objectionable, is a sufficiently complete statement of fact as to causes, if you have not in addition examined the equipment and the efficiency of the equipment of the transmitting station in order to enable you to determine the necessary facts to present to this Commission.

Mrs. Willebrandt: I object to that question, because the answer of Mr. Falknor in the record toward which this question is addressed is just that he did make certain observations and what he found. He based no conclusion upon that except a conclusion of exactly what he measured and found in the home——

Chief Examiner Yost: The objection is sustained.

By Mr. Boyd:

Q. Have you been consulted as an engineer and your advice sought with reference to changes in this station in order to make its operation more efficient? A. I have not.

Q. Have you any information or have you been advised that Station WJKS intends to make a change in the transmitter by the installation of another transmitter? A. Yes; I have been advised of that.

Q. Have you been consulted with respect to that? A. No. The decision was made and I was informed afterwards.

376-378 Q. Are you informed as to the reason for the change? A. I was not.

Q. Did you ever indicate to them that you believed that they should get new apparatus? A. No; I did not recommend that they buy a new transmitter.

379-381 By Mr. Boyd:

Q. Are you prepared to say as an engineer that the difficulties about which the applicant complains may not be overcome by the use of better engineering principles in the construction of the transmitter and in its operation at WJKS? A. I believe it might be slightly reduced; but the

observations I have made lead me to believe that the interference is of such magnitude that it would take an enormous increase in actual rated power to completely eliminate it.

Q. I will ask you to state how you can answer that question if you do not know in detail exactly how the transmitter and the antenna system used in connection with it is functioning? A. I based my inquiry on the assumption that it could be improved. I am not at all certain it can. That is, I have not made sufficient examination to know to what extent an improvement of the transmitter would increase the signal strength; but if improvement of the transmitter would increase signal strength, then there would be some improvement in the conditions. But to what extent that improvement would carry out the solution of their problem, is a thing that I cannot answer.

Q. Do you know whether or not it is expected that if the transmitter is put in at WJKS, the present antenna system will be used? A. I have not been consulted on that, so I do not know.

382 Redirect examination on behalf of the applicant.

By Mrs. Willebrandt:

Q. When you made the limited examination that you have testified to, at the times and places and under the circumstances you have described in your direct examination, did you find that interference did or did not exist? A. I found that interference existed.

Q. In measurable quantity? I do not mean using "measurable" as a scientific term, but in any substantial quantity. A. In substantial quantity in that it was objectionable to the ear.

Q. Was the weather good or bad for interference from stations at a distance on the days you made the specific tests? A. The day that I made these tests was rather warm. It is usually considered as a day on which long distance transmission is not at its maximum. Long
383 distance transmission is usually at its maximum in cold winter weather.

Q. Then would you expect to find more interference in the winter than you found on these warm days in this spell

of warm weather? A. Yes; I would expect to find more interference in cold weather.

Q. In other words, what you measured on those occasions, by reason of the condition of the weather on those two days, was probably less than it would have been a month or a couple of months back during the winter months? A. Yes; it was probably less.

Q. I will ask you generally, Mr. Falknor, might there be mistakes in measuring antenna resistance? A. There might be mistakes made in making any measurement.

Q. In applications of radio stations put on file? A. I think there might be mistakes there.

Q. For the sake of this question let us assume that WJKS was not getting full efficiency: would addition in power affect the interference? A. An increase in power would increase interference. An increase in the power of WJKS would increase the apparent interference.

Q. Did the field measurements which you made indicate that the station was getting out a thousand watts? A. The field strength measurements are not as yet an actual indication of the absolue radiation of power from a radio
384 station. However, the field intensities that I measured at the point I measured them were such that it would lead me to believe that the powers do not greatly vary from a thousand watts.

Q. Or that they were practically 33⅓ per cent efficient? A. Somewhere near that.

By Chief Examiner Yost:

Q. Given the mileage and the field intensity can you approximate the power output of the station? A. You can approximate it fairly accurately, depending upon the type of country in which the measurement is made. If it is hilly country it is practically impossible. If it is flat country with a rather uniform terrain, the estimation will be fairly close.

By Mrs. Willebrandt:

Q. These measurements of field intensity that you made were under conditions such as led you to believe that they were as accurate as reasonably could be expected from field measurements such as that? A. Yes; I believe so.

Q. Mr. Falknor, I have listened to a good many questions asked you about WJKS with respect to its antenna, its power and the efficiency with which it is putting its power out. Would these same questions apply equally to WIBO? A. Yes; they would apply equally to WIBO or any other radio station, for that matter.

385-387 Q. Can you tell me whether WIBO has standard, modern, up-to-date equipment or has it a composite set? A. To my knowledge, which dates back to approximately a year and a half ago—I have not been into WIBO for a year and a half—at that date it was the average composite equipment.

Q. If the set is the same as it was when you observed it a year and a half ago, that is, if it is still composite, these questions would apply equally to WIBO? A. They would apply equally.

Q. At the time you examined WIBO were their towers of the same general type as those of WJKS? A. Yes.

Q. Insulated? A. They were not.

388 By Mrs. Willebrandt:

Q. From your cursory examination of WJKS' transmitter and your cursory field measurements that you have described—I mean, cursory as to the period of time they covered—have you reason to believe that WJKS is efficient? A. Yes. I stated before that with that type of territory and the values of field intensities measured, I believe that they are very likely radiating substantially a thousand watts.

Q. Assuming that the power output was doubled at WJKS, would it greatly improve the condition of interference? A. No; doubling of the power of WJKS would not completely eliminate the difficulty. It might reduce it. It would reduce it to some extent, but it would not completely cure the trouble.

Chief Examiner Yost: It would have the effect, would it not, of pushing it farther away from the transmitter?

The Witness: Yes; it would have that effect, although doubling the power would only raise the actual signal by the ratio of the square root of 2, which would be 1.4. That

would not actually drop the interference down to
389 half of what it is now.

Chief Examiner Yost: Would the volume of interference be actually reduced?

The Witness: It would actually be reduced.

By Mrs. Willebrandt:

Q. There was a question on cross examination asked you as to whether you had listened to WJKS like any other listener, and I think you answered yes. May I ask you whether, in the use of your radio set in your home, where you say during the past year you have listened both to WJKS and WIBO frequently, you listened to just programs, or with a scientific interest in interference and signal strength and clarity of the program, or distortion, if you found any? A. I have listened, of course, from the standpoint of the receiving of entertainment, and by virtue of the fact that I do considerable work for various Chicago stations, I make it a point to listen in regularly on all stations in that district, because I know of my own personal knowledge what difficulties they are encountering as to interference and quality of transmission and signal strength, so that in discussion with those people I can intelligently answer their questions or perhaps point out factors which they have not noticed in their own transmission; and that applies to WJKS and WIBO.

Q. In other words, even in off-hours when you are not working at it, you are still a radio engineer? A. More or less.

390 Cross-examination on behalf of the Commission.

By Mr. Newman:

Q. Mr. Falknor, you said that doubling the power of WJKS would not cure the present trouble. Did you assume the use of the same transmitter when you answered that question? A. No; I am assuming that they may double their power by any means whatsoever, either by using their present equipment or new equipment.

Q. Do you think that a new crystal ground to 560 kilocycles would completely cure the trouble? A. No; I do not.

Ralph L. Atlass was called as a witness for and on behalf of applicant WJKS and, having been duly sworn, testified as follows:

Direct examination.

By Mrs. Willebrandt:

Q. I believe you are part owner of Station WJKS? A. I am.

Q. When did you come into part ownership of that station? A. About the first of this month.

Q. How long have you known Mr. Johnson? A. Several years.

391 & 392 Q. Did you generally know this station during that period, as well as Mr. Johnson personally? A. Yes.

Mrs. Willebrandt: Mr. Examiner, I would like to offer in evidence at this time the last applications, certified in duplicate, for renewal licenses of all Chicago stations.

Mr. Newman: What do you consider the materiality, Mrs. Willebrandt?

Mrs. Willebrandt: For the sake of comparisons, again, in blazing the path of the necessity for proof here. It becomes a weighing of the need to the public of the kind of broadcasting in this under-quota section of Gary with its peculiarly local claims in the Calumet district, as against the broadcasting and the time used for entertainment, religious, agricultural and educational broadcasting in the Chicago area.

Chief Examiner Yost: Are you going to prove that the applications have been granted and that the stations are actually in operation now?

Mrs. Willebrandt: Yes.

Chief Examiner Yost: They may be admitted.

393 Chief Examiner Yost: The Examiner has always permitted the introduction of exhibits from records of the Commission, when they were at all material, notwithstanding that provision. It does not say that they may not be admitted as evidence in the case.

The Examiner is of the opinion that they are relevant.

Mrs. Willebrandt: They will be exhibits 5 to 27, inclusive.

(Duplicate copies of applications of Chicago radio stations were received in evidence and identified by being marked Docket 1156, Applicant's Exhibits Nos. 5 to 26, inclusive, and are filed with the copies of transcript in possession of the Commission.)

Portions omitted in printing.

Mrs. Willebrandt: I would like to offer, accompanying them, just to save time, this tabulation (exhibiting).

Chief Examiner Yost: What is the tabulation? Who prepared it and what have you to say as to its correctness?

By Mrs. Willebrandt:

Q. I show you this and ask you what it is. A. This statement indicates the number of hours of entertainment, religious, agricultural and educational broadcasts, by the different stations in the Chicago area, taken from their license applications. That is, the figures were taken from the license applications, the programs and statement
394 of hours.

Q. Were the figures on this sheet of paper personally taken from those applications? A. They were.

Chief Examiner Yost: You can testify that they are true and correct?

The Witness: As taken from the statements.

By Mrs. Willebrandt:

Q. You testify that they are true and correct, so far as the tabulation is concerned? A. I do.

Chief Examiner Yost: The statement may go in.

(Two copies of statement headed "Statement to accompany exhibits 5 to 26", etc., were received in evidence and identified by being marked "Docket No. 1156, Applicant WJKS Exhibit No. 27", and are filed with the two copies of transcript in possession of the Commission.)

By Mrs. Willebrandt:

Q. This tabulation is a monthly statement, is it not? A. It is.

Q. How many total hours of entertainment are there by these 22 Chicago stations?

Mr. Cook: If the Examiner please, it seems to me that this is a case of Ossa on Pelion. First they prove documents; then they prove a tabulation which the wit-
395 ness says he made. Then counsel wishes to spread on the record by individual answers to many questions what the tabulation shows. I think she has made a complete record.

Chief Examiner Yost: It will be an aid to the Examiner to have it.

Mr. Cook: To have the witness state what the tabulation shows?

Chief Examiner Yost: Yes.

Mr. Cook: Very well.

Mr. Newman: It may be borne in mind, Mr. Examiner, that in each of these applications wherein it has been specified what percentage of their hours on the air are entertainment, agricultural, etc., that that is the opinion of the maker of the application as to what is and what is not entertainment. It seems like plenty of latitude is allowed for guesswork there.

Chief Examiner Yost: The Examiner will not be misled by that.

Mrs. Willebrandt: It is just what the records of the Commission show they are giving the public on entertainment, how many hours of entertainment, and so forth.

By Mrs. Willebrandt:

Q. How many hours of entertainment do these applications show? A. 3,599.44 hours monthly.

Q. How many of religious programs? A. 418.8.

Q. How many of agricultural programs? A. 272.8.
396 Q. And of educational? A. 557.1.

Q. With the hours that WIBO's application gives to these four classifications of broadcasts removed, it would leave in the Chicago area how many hours of entertainment? A. 3,239.4.

Q. And how many of religious? A. 393.1.

Q. And how many of educational? A. 557.1.

Q. How many of agricultural? A. 272.8.

Q. From these applications it appears that how many hours are being given by WPCC in agricultural or educational broadcasts? A. No hours are indicated in their application.

Q. How many of entertainment? A. None.

Q. All of the hours of WPCC as indicated in the documents that have just been put into the record are given to what type of broadcasting? A. Religious.

Q. And that is a total of how many hours? A. Fifty hours.

Q. Therefore the condition of the Chicago broadcast by the removal of WPCC would change the totals you have just given in only the amount of religious broadcasting; is that correct? A. Yes.

397 Q. And that would reduce the religious broadcasting in Chicago from the 393.1 hours that you have just given by 50? A. Correct.

398 *Testimony on Behalf of Respondent WIBO.*

William S. Clark was called as a witness for and on behalf of respondent WIBO and, having been duly sworn, testified as follows:

Direct examination.

By Mr. Cook:

Q. Mr. Clark, will you state what your business experience has been in relationship to radio? A. It has been editorial and broadcasting. I organized the first radio section in Chicago in January, 1922, and within a few weeks after that we began broadcasting in the sense that we began furnishing a service to KYW, the Westinghouse station in Chicago. That has continued, with different vehicles for broadcasting, ever since; a period of something better than nine years.

Q. Who are "we"? Is that a newspaper? A. The Chicago Evening American, an evening newspaper in Chicago with the largest circulation of any evening newspaper in Chicago; the second largest of any in the

399 United States, according to the A. B. C. records.

Q. Your radio publication started in 1922? A. Yes, sir.

Q. What was the character of the radio page? A. Originally it was stories of the new thing that had come in—radio—telling about what radio was, what it was expected to do; and many of them were prophecies that were

rather wild at the time, but in the main those prophecies have materialized.

Gradually we began to print radio programs, not only of KYW, but of other Chicago stations as they were built, and also of stations throughout the United States, giving general information to the reader as to what radio was, what it was doing, and the nature of the program material on the air. Also we published in those days diagrams of radio sets, wiring diagrams and schematic drawings, so that the reader could build his own set; and for a couple of years that was quite a feature of the page. That gradually went out with the perfection of radio receivers, and at present the technical side of radio is rather minimized and the service of radio is stressed.

Q. What other newspapers followed your first venture? A. The Chicago newspapers followed in turn; the Daily News, first, and then in series, others.

Q. Your first station association was with KYW? A. Yes.

Q. What later associations did you have? A. We had association with KYW for approximately six years, until the latter part of 1928. Then for approximately one year we had an association with WBBM and, beginning October 1, 1929, we began association with WIBO. That has continued to date.

Q. And it is anticipated that it will continue as long as you can maintain your relationship with the station? A. That is our wish and our desire.

Q. Will you state what your relation is at the present time with WIBO? A. Prior to October 1, 1929, in conference with Mr. Black, the publisher of the Evening American, Mr. Nelson, of Nelson Brothers Bond and Mortgage Company, owners of WIBO, and myself, and also with the local representative, the vice-president of the National Broadcasting Company, we began on that date an affiliation with WIBO and the Evening American and the National Broadcasting Company. It was sort of a general agenda as to the parts to be played by the three parties, which were left to further development—of the American, to me, and for the other parties, to their respective directors at the time and those that were to follow.

As a result of that, on that date WIBO began to get National Broadcasting programs. They became an official

outlet of the National Broadcasting Company on the same date that they became an official outlet of the Evening American service. They have continued until now.

Q. What service do you furnish to WIBO as your participation in the cooperative service? A. Well, we furnish service of several classes. I will enumerate them for convenience and speed in the different classes.

401 Our agreement with WIBO generally covered the idea that WIBO was to have from the Evening American whatever service it required and that we were to have from WIBO an announcement of the Evening American's name on the air in connection with the call letters of WIBO approximately twice an hour during the day and evening, at all times when WIBO was broadcasting. The usual announcement is:

"This is Station WIBO, owned and operated by Nelson Brothers Bond and Mortgage Company and affiliated with the Chicago Evening American, the most widely read Chicago afternoon newspaper."

That is approximately the wording.

Q. What kind of material to go on the air through WIBO does the Chicago Evening American furnish to WIBO? A. We furnish several times during the day the market reports, news bulletins at regular intervals, and at intermediate times spot news flashes, such as verdicts in important cases, accidents, unusual happenings that happen to crowd in on the news at that time. Those are given immediately. We also furnish over the air the cooking department of the American. We have a cook who has a laboratory kitchen in the Hearst Building where the Evening American is published, who writes a series of stories in the paper daily containing advice on cooking, menus——

Q. By "stories" you mean items? A. Articles,

402 yes, on seasonable foods, and she conducts classes of women—mostly women, of course,—teaching them how to cook, how to select foods, and gives them direct illustrations in her experimental kitchen, which has an auditorium seating 100 to 120 people.

Q. Does that go into the field of so-called household economics in the food line? A. Yes; it reaches out into household economics, and is without advertising. In other

words, we do not advertise either in the articles she writes or in her class work brands of foods.

She goes on the air about 11 o'clock—I think the schedule is, now—either she or one of her assistants, for a 15-minute broadcast. That broadcast includes information to the listener as to seasonable foods, seasonable entertainment; that is, for Thanksgiving the proper sort of thing to have for a Thanksgiving dinner; at Christmas time, Valentine's day, proper decorations of the table, and all that sort of thing. She answers letters received from listeners, giving them further information and sending to them the literature we have on her work.

In her broadcasts on the air nothing is said of food brands. If she speaks of shortening, she calls it "shortening"; she does not mention the name of any food brand in any way. There is still another service along this line.

403 We also have an interior decorator who writes under the name of Mrs. Perry. Her column in the paper is informative as to how to decorate the home, how to furnish it, such as drapes, color effects, and all that sort of thing. She goes on the air alternating with Mrs. Martinson, who is the cook, and gives the listener talks on house decoration.

In that case also there is no trademark or trade name used. It is a service of information and not of advertising.

Q. Give a typical illustration of current news service furnished by the newspaper to WIBO station. A. Well, to illustrate, at 10:30 in the morning we go on the air from our own studio in the Hearst Building, giving them the ordinary market quotations of the leading stocks, also possibly a review of the New York stock market by our expert, the International News Service expert.

Those being finished we give them an outline of the early day's news as we get it from the International News Service and as our local reporters pick it up. That is repeated again at 12:30, with the markets, and then in the afternoon, following the ball games, with the closing of the markets and also later newspaper bulletins.

Q. In case of a catastrophe, like the falling of an airplane with Knute Rockne in it—— A. That happened in the middle of the morning at a time when we were not scheduled to be on WIBO with news flashes. Immediately a thing like that happens they notify the radio department

and we notify WIBO that we have a news flash, and if possible they break the program and we give it. If the program is a national chain program which cannot be broken, we wait until the close of that program. It may be
404 ten minutes or five minutes; probably not longer than 15 minutes. We then gave the news flash telling them Rockne was killed in an airplane accident and what little information we had at the time. Incidentally, we call attention to the fact, naturally, that the more complete story will be found in subsequent editions of the Evening American.

Q. Describe your studio arrangements with WIBO and the means by which you handle anything that you furnish to them. A. In our early connections with KYW we built in our building, that is, the Hearst Building, Chicago, a studio, sound proof. It was at that time the first real studio built in Chicago. Installed in it was the regulation equipment for broadcasting, microphones, amplifier and all that sort of thing. That studio we continued to keep open for the time being. We broadcast from that studio the entire troupe from one of the local theaters, the Ziegfeld Follies; we had the Duncan Sisters, White's Scandals and various other shows that came to town. We would bring them over after the show and either put on the show or put on musical selections from it. We had afternoon programs, and we carried six to eight hours a day of programs from that studio until KYW built its own studios which were better equipped, and we quit broadcasting from there. But it is still usable and is being used by WIBO as a down town studio. Their main studio is some eight miles north of the Loop. It is a matter of convenience to WIBO to have a down town studio for many broadcasts, particularly of celebrities passing through the city. Most of those
405 celebrities are theatrical and movie people. If they have a few hours in Chicago our dramatic department brings them over to our studio and puts them on the air so the audience can hear them.

We have also a panel connected by permanent wires from our building to WIBO's main studio in Broadway. I call it a panel. It is more or less in the nature of a switchboard, and through that panel all the pick-ups from the Chicago Loop and south are made.

In other words, to illustrate, the White Sox field, which is practically four miles south of the Loop—they run the wires through into our panel, and from that they go over our own wires up to WIBO's studio in Broadway. That is true of the cafes and hotels south of the Loop.

Q. For their musical entertainments? A. Yes. These programs that are broadcast are picked up from south of the Loop and passed into our office and are carried over wires for which the American pays line charges to the WIBO main studio in Broadway.

Q. You support a connection in order to have them available for your uses and their uses for prompt service? A. Yes. Our studio in effect is a branch studio of WIBO.

Q. Are there any services that WIBO furnishes in association with you for which you make any remittance or payment to WIBO? A. Yes; but I have not finished, Mr. Cook.

Q. Go ahead. A. We have on Tuesday evening a
406 period known as the True Chicago Hour. That is sponsored—I don't mean, commercially sponsored; I mean it is sustained—by the Chicago Real Estate Board, the Chicago Evening American and WIBO. At that period we put on a prominent Chicagoan, who is prominent in his particular activity, to talk about Chicago and Chicago's activities.

For instance, Colonel Randolph, the president of the Chicago Association of Commerce, has talked there about Chicago generally and its position and hopes and ambitions in the world of cities. The president of the Illinois Central Railroad I recall has talked about Chicago as a railroad center.

The present head of the National City Bank discussed Chicago as a financial center. We have had, since February, 1930, when the series started, about sixty men of that type who each Tuesday evening at 6:30 go on the air from our studio, or generally from our studio, and tell the story of Chicago in its better sense.

The Superintendent of Schools and representative of the Chicago Art Institute talked of Chicago art; and on the commercial side men who are equipped to talk about Chicago as a shoe manufacturing center or a candy manufacturing center; all these things which we consider go to the building up in the minds of the radio audience a picture of Chicago's

greatness rather than her follies are broadcast on these Tuesday night features.

Then we put over the air a comic supplement which is entertainment for youngsters. A young fellow plays
407 the ukelele and different things, and "Pop Eye" and "Little Annie Rooney", and all the others are read to give the kiddies a jolly 15 minutes, when they are listening; and we give sports reviews.

Without going into further details of those features, the facilities of the Evening American editorial and news-gathering forces are at the command of WIBO in case they want them.

Q. Are you ready, now, for the question I asked previously? A. Yes. In addition to that, the ruling was made by our publisher in our original conference that where we wanted direct commercial propaganda for the Evening American we were to buy the time. I do not know whether I made it clear in the beginning that this was not a question of purchasing time from WIBO. All these features are given WIBO as service to its listeners and accepted by them as such.

Q. You mean, all that you previously testified to? A. All that I previously mentioned.

Now we go into the commercial side of it. We buy time on WIBO for such activities as we believe are of benefit to our advertising staff, advertising solicitation. For instance, the manager of the classified advertising department buys time on WIBO in order that when an advertiser takes a certain amount of linage in his department he can go on the air and call attention to that particular group of advertising. Supposing Cochran and McClure, or
408 any of the other big rental people, give you, before May 1st, a certain amount of "For Rent" advertising. Our advertising manager is in position to tell them that if they carry that amount of space he can give them, in addition to the space in the American, an announcement over WIBO for which the American pays at the rate scheduled, when some announcer goes on at a certain point and says this certain building, describing the building of the Cochran and McClure group, and calls attention to the fact that the Evening American's classified pages carries more detailed information as to the character of the building and the rates of rental, and so forth.

We have that same arrangement with our insurance department. By "department", I mean we carry every Tuesday articles by a Mr. Loomis, an old experienced insurance man, on life insurance, and on Monday evening we go on WIBO with a 15-minute playlet based upon the records of the Chicago underwriters believed to be a true record of some Chicago family who either were saved from penury on the death of the husband by the lucky chance of his having taken out life insurance, or who were left stranded by the fact that he failed to close his contract with the life insurance company. Those playlets are put on by a group of two or three or four characters, and the Evening American pays WIBO for the time.

Q. Does that accomplish, first, the general encouragement of life insurance with reference to the advertisements of insurers who wish to have that studied in the newspaper by the public at large, and, second, a
409 benefit to your advertising department in that field?

A. Yes. The whole service tells the story of life insurance to the reader of the newspaper and to the audience of WIBO, and also makes the advertising of the insurance group more effective. We get more advertising from the insurance group and we believe it helps business.

We are not doing this out of generosity to anybody. The classified man believes it promotes his business to the extent that he can well afford to buy time on the air. So does the insurance man; also the man who conducts the advertising of our Saturday magazine section. He buys time on the air to promote certain advertising features of that section.

Q. That is another classification? A. Yes.

Q. Describe that briefly. A. He carries certain pages on foods and particular brands of foods, and on Friday he puts on the air a woman talker who conducts a "What is in your Cupboard?" program, in which the listener is asked to write in as to what she has been able to make with these advertised brands of foods and how they have improved their cooking or otherwise.

That is a purely commercial thing for which we pay, and we believe that it pays us to do so.

To be more exact on the financial end of it, some of these programs we rate as promotion and pay for them out of the profits of the Evening American. The insurance pro-

gram, however, is of a little different character. The clients of this life insurance movement bear a pro
410 rata expense of the cost of the insurance program, both time on the air and the pay of the artists involved. But eventually it more or less comes out of the profits or the promotion costs of the Chicago Evening American; and we believe we get returns, otherwise we would not carry it on.

Q. Outside of those three classes of publicity in which there is some money exchanged, the relations of your newspaper and WIBO are mutual and cooperative? A. Yes. There is another service, however, which we have not included. We give WIBO a direct advertising service in the pages of the Evening American. That was a part of our original agreement. We sell classified advertising in the Evening American and sell it for a pretty good rate. Under our original agreement we were to give WIBO from time to time advertising, from a small ad. up to a page ad., depending upon the advertising burden of the day. We had no fixed time in which we were to carry those ads., but just placed them on certain days when it was convenient to do so. That was not a payment to WIBO but a direct cost to the Evening American.

Q. A contribution to WIBO? A. The effect of the advertising, as we understood it, was to broaden the audience of WIBO by calling attention of the American's readers to the service which WIBO was rendering, thereby increasing the value of WIBO to the community and, incidentally, to the Evening American.

Q. I hand you this paper and ask you if it is an example of a full page ad. of WIBO in the Chicago Evening
411 American. A. Yes. That was carried in our paper.

Mr. Cook: We offer that as our exhibit No. 1.

Chief Examiner Yost: Newspapers are not admitted, under the rules. If the advertisement itself is clipped and offered in duplicate I can see no objection to its being admitted.

Mr. Cook: This is not to prove popularity, but to show the relationship of the service.

Chief Examiner Yost: The Examiner understands that, but the Examiner is just adhering to the rule that newspapers as such are not admitted as exhibits. If the adver-

tisement itself is properly presented, certified and identified it may be admitted.

(Two copies of an advertisement of WIBO appearing in the Chicago Evening American under date of April 17, 1931, were received in evidence and identified by being marked "Docket 1156, Respondent WIBO Exhibit 1-A", and are filed with the two copies of transcript in possession of the Commission.)

(Omitted in printing.)

By Mr. Cook:

Q. And you also receive, as you have testified, announcements beneficial in an advertising way and an exploitative way to the Chicago Evening American over WIBO's transmitter? A. Yes. We have these regular announcements which occur practically every half hour during the time that WIBO is on the air, morning, afternoon and evening, week days and Sundays; and very often we hear over the air very courteous references to the Evening American by WIBO, made on their own responsibility without our solicitation.

We also in our business relations have an arrange-
412 ment with WIBO in a sort of a combination rate card by which an advertiser in the Evening American receives a lower rate for time over WIBO than does a non-American advertiser.

We also have in that connection, and growing out of it, a program of WIBO known as the Giant Finger of the Air, occurring frequently during the week, which is a musical program interspersed with references to news features in the Evening American and put out in the Evening American, the attention of the listener being called to the page in the Evening American at which that advertisement is placed. These advertisements in this Giant Finger of the Air program are sold by WIBO to the advertiser. They are not sold by the Evening American. In general we do not sell time over WIBO, and WIBO does not sell space in the Evening American.

Q. Have you a joint rate card showing that commercial arrangement with patrons and users of WIBO's transmitter? A. Yes; there is such a rate card.

Q. I ask you to identify this paper and state what it is. A. This is the Giant Finger of the Air synopsis and also the joint rate card.

Mr. Cook: I offer it in evidence.

Chief Examiner Yost: The witness knows it to be true and correct?

The Witness: Yes.

Chief Examiner Yost: It may be admitted.

The Witness: I did not prepare it, but I know it is correct.

413 (Two copies of rate card of radio station WIBO were received in evidence and identified by being marked "Docket 1156, WIBO Exhibit No. 2-A", and are filed with the two copies of transcript in possession of the Commission.)

By Mr. Cook:

Q. That card sets forth in detail what you have just stated? A. Yes, sir.

Q. Mr. Clark, what is the editorial news policy in the radio department of your paper with respect to station WIBO?

Mrs. Willebrandt: I object to that, if the Examiner please, as not being competent in the case, unless there is some link-up between the radio editorial department of the Hearst newspaper and the station. There is no identity of ownership that we have discovered so far, or of management.

Chief Examiner Yost: Some link-up would be necessary, the Examiner feels, to show where the attitude or the policy of the paper would be material in this case.

Mr. Cook: I think we can link it up, if the Examiner please. I will state how it is linked up.

This newspaper, which the witness has shown has the largest circulation in that territory in the evening field, is shown to be in relationship with this station. The service of the station is aided by the fact that this great newspaper is in relation with the station, and with the newspaper's editorial attitude, as it will be stated by the witness, it may be disclosed that the service of the station is increased; its

benefit to the public interest is increased by the fact
414 of the newspaper's editorial attitude in its great circulation of its evening paper; and that, I think, the Commission and the Examiner should consider in judging of the station.

Chief Examiner Yost: It is your position that if Station WIBO were removed and taken off the air, the fact of its attitude and its policy toward the station would be a loss to the public?

Mr. Cook: That is right, sir, and we will prove that. The situation in which it would be left. I think that is perfectly competent.

Mrs. Willebrandt: Those things in detail can be asked.

Mr. Cook: I am laying a foundation only.

Chief Examiner Yost: You may show just what the attitude is.

The Witness: The Evening American carries from three to five and more a day of what we term radio news articles on its radio page, a page designated as the Radio Page. By that, I mean it is not hit and miss through all the paper; it is put on one page. We carry in there the programs of the Chicago stations, the evening programs. We carry a special displaying the programs of WIBO in the evening and, when opportunity presents, the following day. Tightness of space sometimes eliminates that.

We also carry short stories with separate headings on
415 what we consider the best outstanding programs of the coming evening or the future on all the radio stations in Chicago. Usually our editorial judgment has been that the line over the page be devoted to the programs of WIBO, holding that those programs are of sufficient importance in Chicago for them to justify the headline. That is our editorial judgment.

By Mr. Cook:

Q. On this page to which you refer you have what is a continuation of the first radio page ever published in Chicago? A. The first radio page ever published in Chicago, which was started on January 18—it was not a page then; it was a column at that time—January 18, 1922, and it has expanded and shrunk at various times until it is as is.

Q. I hand you this paper and ask you if you can state what that is. A. Without examining each separate item

in detail, I will say they all appear to be facsimiles of the headlines of the Evening American radio page. Some of the pictures carried on the pages are shown in part or in whole, and some of the text matter of the stories.

Q. Are these illustrative headlines reproduced those of the Chicago Evening American's radio page? A. Yes, day by day. The headline may not always be the entire eight columns; it may be six columns or four columns or even three; but we carry such a headline on the page; this illustration being larger than the page. The type on the page is not quite so large as it appears here.

Mr. Cook: If the Examiner please, we offer
416 & 417 three different duplicates of these collections of headlines and types of the radio page of the Chicago Evening American of different dates. We will offer all of the pages of all of the newspapers from which these photographs were made in composite, as supporting the statement of the witness as to the policy of the Chicago Evening American with respect to the radio position in general in Chicago and the particular radio position with respect to Station WIBO.

418 Chief Examiner Yost: They may go in for what they are worth, since there is no objection.

(Two copies of headlines from Chicago Evening American, dated March 16, 1931, were received in evidence and identified by being marked "Docket 1156, Respondent WIBO Exhibit 3-A", and are filed with the two copies of transcript in possession of the Commission.)

(Two photostat copies of headlines from Chicago Evening American, dated February 25, 1931, were received in evidence and identified by being marked "Docket 1156, Respondent WIBO Exhibit No. 4-A", and are filed with the two copies of transcript in possession of the Commission.)

(Two copies of headlines from Chicago Evening American, dated February 18, 1931, were received in evidence and identified by being marked "Docket 1156, Respondent WIBO Exhibit 5-A", and are filed with the two copies of transcript in possession of the Commission.)

Omitted in printing.

By Mr. Cook:

Q. Will you look at this paper and state what it is? A. This is a picture or drawing of the studio of WIBO in the Broadway Building.

Q. Will you turn to the middle pages? A. These are photostats similar to the ones we just looked at, of
419 pages of headlines, and photos printed in the Evening American's radio page. This page seems to be concerning celebrities of national character.

The next page appears to be mostly concerned with operatic and musical broadcasts.

This (indicating) appears to be a combination of orchestra broadcasts and other features, with the orchestra broadcasts predominating.

The next also is program material, religious, sports and others.

This (indicating) is similar, being photostats of headlines and portions of the contents of the radio page of the Evening American.

The next page and the following page are similar; the following page, however, being largely devoted to sports. The final page is illustrative of the attention given the matter of television over Station W9XAO which operates in conjunction with WIBO.

Q. Experiments on television? A. Experiments on television and the attention given it in the Evening American pages.

Chief Examiner Yost: Are they all events broadcast by this station?

The Witness: There is one date here, Friday, August 22. This operatic page would be some time between the latter part of October and the middle of January.

Chief Examiner Yost: Who prepared that?

Mr. Cook: I will explain that in my proffer.

The Witness: One date is December 27, 1930. It
420 apparently covers the last six months of 1930.

Mr. Cook: If the Examiner please, I make a proffer of this booklet only for the purpose of laying on the record the photostats of newspaper headlines and items——

Chief Examiner Yost: Is that prepared and issued by WIBO?

The Witness: It is prepared and issued by WIBO and is identified as containing photostatic reproductions of material appearing in the Evening American. It is in exact lines with the previous exhibit, but is in more convenient form and goes to a greater extent.

Chief Examiner Yost: The individuals shown are individuals who have broadcast in some capacity over Station WIBO?

The Witness: Without names being given. The photographs surrounding the reproduction of the newspaper items are a mere border without giving the identification of parties.

Chief Examiner Yost: It may be admitted.

The Witness: Some of the photographs may not be of those who broadcast over WIBO, but I assume they are, without making a minute study.

(Two copies of the booklet referred to, headed "WIBO, at the top of the dial", were received in evidence and identified by being marked "Respondent WIBO Exhibit No. 6-A", and are filed with the two copies of transcript in possession of the Commission.)

Omitted in printing.

By Mr. Cook:

Q. Is it or is it not the policy of the editorial department in the radio page of the American that your news
421 comment is not for sale? A. I want to bring out that distinction. I was going to ask for the opportunity if you did not ask me about the distinction between that page display ad. that was shown and the facsimiles of the news pages. Of course the editorial content of the Evening American—I presume it is true with standard newspapers—is not for sale or for exchange. We have a perfect right under our policy to give WIBO or anybody else a display ad. in our paper. We would not for a price or for a consideration other than a money consideration.

We would not consider that we had any right, under the ethics of a proper newspaper publication, to give the editorial content of our paper for a price or for any other consideration. In other words, we do not sell it or barter it or exchange it.

Q. That is a matter of your editorial judgment? A. The assumption is that the news content of the paper belongs to the reader. It is our editorial policy to give what we consider is the most interesting to the largest number of our readers.

Q. Will you state the position in Chicago respecting the affiliation or ownership of radio stations by the principal newspapers? A. Chicago is peculiar in that, because it is probably the only large city where the newspapers are so universally affiliated with radio. The Chicago Tribune owns and operates WGN either directly under the Tribune Corporation or a separate corporation. I am not familiar with that.

The Daily News owns and operates WMAQ under
422 a separate corporation, a separate business proposition.

The Herald and Examiner—that is a Hearst morning paper—operates KYW under lease from the Westinghouse Company, the owners of the station.

Station WBBM has an affiliation with the Times, an afternoon tabloid paper. Just what the relation between the Times and WBBM is I do not know.

The Evening Post, which is practically the only other paper of general news circulation in Chicago, has at the present time, so far as I know, no direct radio contact, but it has had at different times contact with other stations.

Q. Is it or is it not a comparatively small paper in circulation? A. The Post?

Q. Yes. A. In circulation it is quite a small paper, an old paper, but it has a very limited circulation.

Q. Nothing to compare with your paper or the Evening News? A. No, not at all.

Q. Now will you state to the Examiner, if you can, the relative linage of radio advertising by radio companies and accessory purveyors in your paper and the other papers in Chicago? A. Radio linage began in 1922. Prior to 1922 there was no radio industry, no radio advertising. Along in the latter part of 1922 the first radio advertisements began to appear. They were a minimum—nothing to compare with advertising in other fields.

423 In 1923 they began to build up, continuously building up until they reached the peak in 1929.

Beginning in 1923 the Evening American has led the Chicago metropolitan field in total radio linage, that is, of all the six-day papers, including the morning papers, the seven day publication of the Tribune, the Sunday Tribune—sometimes the Tribune has the edge on certain classifications, but we have consistently led the field from 1923 through 1930. I have not seen any figures on 1931 to indicate whether we are still ahead, but I assume we are. That is an assumption only.

By Mr. Cook:

Q. What would be the position of the Chicago Evening American with respect to securing other broadcasting outlets by association with some broadcasting station if
424 WIBO were taken off the air?

Mrs. Willebrandt: I object to that. It is not within the issues here. Of course the patrons that are now using WIBO would not be able to use it if it is taken off the air. Whether they could hypothetically make arrangements elsewhere is not a part of this case.

Chief Examiner Yost: You ask him for his policy? The Examiner is of opinion that the question might have been stated differently, using some other word instead of the word "policy."

Chief Examiner Yost: It has some relation to this issue, as the Examiner sees it. It is the position of the Examiner that if it can be shown that the taking of this station off the air would injure the public service, then it may be shown, but otherwise it would not be material.

Mr. Cook: I think the question is complete.

Chief Examiner Yost: The Examiner probably was mistaken when he said you used the word "policy." You used the word "position."

Mr. Cook: Add to that question this further clause, please:

And by "position" I mean your ability to employ broadcasting in conjunction with your newspaper.

Chief Examiner Yost: You may answer.

Mrs. Willebrandt: I object to that, because there is no showing that their ability to link broadcasting with
425 their newspaper policy is in the public interest.

Chief Examiner Yost: But there is a relationship here; and the witness, if he knows, may answer.

The Witness: There is no other station in Chicago commensurate with WIBO's present standing that is open to a newspaper affiliation.

Chief Examiner Yost: But so far as you know, with reference to making other arrangements, you would not be qualified to say. You have not approached them or——

The Witness: We have not searched the field, but my knowledge of the outstanding stations in Chicago and their present affiliations is such that I know we could not make contact with any station of WIBO's character without displacing some other newspaper contact. There is no other station.

By Mr. Cook:

Q. And the material which you would furnish would be a change of and substitution for existing program arrangements of those stations? A. Yes. The material we now furnish and the facilities of the Evening American which are now at the command of WIBO and are being used by WIBO would be off the air.

426 Cross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. Mr. Clark, WMAQ, I believe you said, was owned by the Daily News? A. It is operated in conjunction with the Daily News, and I understand it is owned and operated by another corporation, not by the same corporate group that runs the paper. They have separated the station operation from the newspaper operation.

Q. Will you state, if you know, whether the Daily News has a page with headline features on WMAQ? A. They have a page, but their make-up of the paper differs from ours. They do not carry those headlines ordinarily.

Q. WGN is owned or operated by the Tribune, is it not? A. Yes.

Q. Will you state whether the Tribune carries headlines exclusively of the features of WGN? A. The Tribune carries a very brief editorial statement on the WGN programs and chain programs, and they carry a form of display advertising at times of the WGN programs. They carry no other programs except in their early mail editions,

but in their city editions they carry no reference to the programs of other stations except WGN.

Q. Are those headlines particularly emphasized? A. No; they are small headlines, the ordinary routine heading.

Q. But they are silent on all other stations except
427 WGN? A. In the main. I do not recall that recently they have mentioned any station besides their own.

Q. Does the Herald-Tribune outrightly own WGN? A. WGN is popularly known and has been for years as the Tribune station and is understood to belong either to the Tribune corporation or to a corporation subsidiary to the Tribune.

Q. So the Tribune is not an advertiser over WGN, and it is known that WGN is the operator of the station as an owned subsidiary; is that right? A. It is generally understood that WGN is the Tribune station. As to whether they carry any direct advertising of their own institution on a commercial basis of course I would not know.

Q. WLS is owned or operated by the Prairie Farmer, is it not? A. For some time it was owned and operated by Sears Roebuck, and then by the Prairie Farmer, and recently it has been taken over, under a lease or agreement, by the National Broadcasting Company.

Q. Can you tell me whether the Prairie Farmer headlines its programs? A. They did some time ago. I never see the Prairie Farmer. It is an agricultural newspaper.

Q. WBBM is owned by the Daily Times, is it not? A. The Daily Times Corporation. Mr. Thomason is the president of it. It is owned by a corporation.

428 Q. Who owns and operates KYW? A. The Herald and Examiner, a Hearst morning paper, operates KYW under a lease from the Westinghouse Electric and Manufacturing Company, which owns it—I mean, operates it as to programs. I think the physical operation of the station is carried on by Westinghouse.

Q. The American used to use KYW as its outlet? A. For six years we used it.

Q. During the six years that you used KYW as your outlet did you feature the same headlines and editorial policy with reference to Station KYW? A. We varied at times. That was a time when the programs on the air were not the big news story of radio. The development of radio in other

fields—very often it was considered the best story, and we carried a headline on some technical feature, some new set, some new invention in radio, subordinating the programs.

Q. Your editorial policy changed on the American about the time that you began to use WIBO as your outlet? A. I want to say that the editorial policy has never changed.

Q. I am referring in my question to the policy of your radio page. A. The news features changed.

Q. So that now you headline exclusively the programs of WIBO? A. In the general sense our big lines run to WIBO programs, but our little lines are not always WIBO.

Q. Will you state what the Herald-Examiner does
429 with the time of KYW? A. I would not be competent to answer that.

Q. It runs it, you say? A. It sells time on KYW as if it owned it; puts on its own programs and handles it as though it owned the station.

Q. You say that the Herald-Examiner runs and sells time on KYW? A. Yes.

Q. Who owns the Herald-Examiner? A. It is owned by the Illinois Publishing Company which, in turn, is owned by Mr. Hearst.

Q. It is a Hearst paper and the American is a Hearst paper? A. Yes.

Q. Why could not the American buy its time from KYW? A. We are members of the same family. We are both owned by Mr. Hearst; but the personnel in the editorial and business operation of the two papers is kept distinct. It is Mr. Hearst's policy not only in Chicago but in other cities to keep the morning and afternoon papers as distinct as possible. We could buy time on KYW, possibly, but we would have to do it at the expense of elimination of the Herald-Examiner's time.

Q. If you bought it would you have to pay any more for
it? A. No; but Mr. Hearst would probably feel that
430 the Herald and Examiner's interest in it, in the time on KYW—he would object to the evening paper buying it or using it.

Q. You just told me that the Herald-Examiner does not use the time of KYW; it sells it. A. Oh, yes; it uses it too, either for sustaining programs or sells it for revenue to pay the cost of operation.

Q. It sells time on KYW to other advertisers that buy time? A. Yes.

Q. But do you think of any other reason why the Chicago Evening American could not buy that unused time instead of using WIBO? A. It would be against the general policy of Mr. Hearst to have the two papers working in that way if it could be avoided; and they are paying Mr. Hearst through the Herald-Examiner a large sum of money to Westinghouse for the leasehold of that station. It is up to the Herald and Examiner to at least break even or make a profit. It would be impracticable. While in theory it might be worked out, it would be an impracticable arrangement and it would not work out.

Q. Then, according to Mr. Hearst's policy, it would be an impracticable arrangement, if I understand you correctly, to get time or to have an outlet in a radio station where you have to buy time? A. Well, it goes back to another principle. Mr. Hearst on some of his papers actually buys time. I believe the New York papers buy time over WOR at Newark and pay for the time they have for their exclusive use. It has been the policy of
431 the publisher of the Evening American, and he has that right under Mr. Hearst's assignment of authority to his publishers, to determine for the American what our policy is to be. It has not been Mr. Black's policy to buy time on the air for any great amount of use for the general promotion of the paper. Spot time for certain advertising departments of the paper in a minor way, yes; but he would not at present go out and buy the operation of a radio station.

Q. The Chicago Evening American, though, is a business enterprise, is it not, that is engaged in doing many other things? A. Yes.

Q. The policy, then, of Mr. Hearst to which you refer would be that of getting a radio outlet without paying the advertising rates that other advertisers have to pay? A. Now, I would not say that. I am not in position to state Mr. Hearst's policy. Mr. Hearst's general policy with regard to radio may vary with the need in a particular instance. Mr. Black, our publisher, has always carried the idea that the present way of handling radio is the most successful way so far as a newspaper is concerned, and we

have, since we began, with the exception of a very limited time on KYW, carried out his policy.

Q. I believe you referred to the use of some time you have from WIBO for a life insurance playlet. What life insurance company was that? A. It is the Underwriters, an organization of life insurance companies, not any one company; the Chicago Underwriters, which I under-
432 stand to be supported by a group of life insurance companies.

Q. How much do the Underwriters Association pay for that time? A. I would not be in position to answer that, because I did not handle the commercial aspect. That was handled by the man who handles the insurance advertising. I just know of the arrangement, but what he paid or what they pay I do not know.

Q. They did not have to pay the same rate that other radio advertisers have to pay on other radio stations? A. In general I would suppose that they got the Evening American-WIBO compound rate which is slightly lower than that to outside advertisers. But I know nothing about the business arrangement, of myself, between the head of our insurance department and WIBO and, on the other hand, the Underwriters.

Q. You are not stating for the record that this playlet and the advertising of the insurance underwriters over the air was arranged directly by the underwriters with WIBO or paid for directly by them to WIBO? A. I did not personally make the arrangement. It is my understanding from the conversations and things that have come up in connection with it that they pay a surplusage to carry the radio program, and the Evening American in turn pays WIBO. But the commercial manager would be more in position to actually answer that.

Q. Do the advertisers in the Evening American get radio mention in addition to their advertising rates? A.
433 If they pay for it and it is understood that they are to get it; yes.

Q. But it is less than radio advertisers have to pay otherwise? A. Yes. There is a slight reduction from the card rate.

Q. Will you state, Mr. Clark, whether, in your opinion, this cuts both ways—it undercuts other newspaper advertisers and also other radio advertisers? A. It is an

open book for other newspapers and other radio stations. I do not know of my own knowledge whether the Tribune advertiser gets a better rate over WGN, because I am an editor and not an advertising manager, and I have not had any occasion to know that.

Q. Would you state why the Evening American has this dual policy? It is for the business advantage that comes from it, is it not? A. That is true.

Q. It is not primarily for the public service that comes from it? A. That advertising policy, so far as the commercial side—I have made a distinction between the commercial side and the editorial side—we claim no
434 special generosity in our commercial advertising over WIBO. We do it for the same reason as any other advertiser, to get more business. When we buy time we expect to get the business and we get paid for the money we spend, the same as any other advertiser.

Q. Do you think of any of the time that you use on WIBO as primarily for the public service, public convenience and public interest? A. Yes. It is my opinion that the eight or nine—I think it runs now practically ten hours a week—the Evening American news service, cooking service, market reports, interior decoration and all that service is primarily for the interest of the listener.

Q. Market reports and cooking? A. Market reports and cooking and interior decorating, "True Chicago Period", sport flashes——

Q. Will you state how many other Chicago stations are broadcasting cooking services? A. Well, there are cooking services over both chains, Columbia and National chains. I do not know just what other newspapers carry that on.

Q. WGN does, does it not? A. From my own knowledge I do not know. Naturally it would.

Q. WBBM does too? A. I don't know.

Q. The Columbia Broadcasting Chain does? A. Yes.

Q. KYW, the other Hearst station, does too, does
435 it not? A. Probably.

Q. WENR does too, does it not? A. That is the National Broadcasting Company.

Q. But they carry it as a part of their program, do they not? A. That I don't know.

Q. WCFL, the Chicago Federation of Labor station, also has that same service? A. That I don't know. I suppose so.

Q. How about WMAQ? They do, don't they? A. I assume so.

Q. Is there any station in Chicago that you know of that does not broadcast market reports? A. Any station that has a newspaper affiliation can; whether they do or not I don't know. I have not followed it.

Q. You know, as a matter of fact, that a great many of them do, if not most of them? A. Yes, sir.

Q. Referring again to this radio editorial policy that you have, would you think back over a number of months' time, whatever it may be when you had your present radio editorial policy, and tell me whether the space that you have given on that page to all the N. B. C. programs as combined and carried by other Chicago stations is equal to the space you have given to WIBO? A. The space we give to WIBO each day is not 50 percent; it is greater
436 than any other station by far, of course, but it does not absorb the page.

Q. But it always absorbs the big black headlines? A. Yes, usually; I think, always, probably. It does not absorb the illustrations and pictures and does not absorb the listed programs.

Q. Would you say that WIBO then had something less than 50 per cent of space but all of the headlines, and that the balance was used for the other stations? A. That 50 per cent is only a guess. It might be 40 or 30 per cent.

Q. I believe the Chicago Evening American at one time was identified with KYW and using KYW time, was it not? A. Yes.

Q. Why did you change? A. That is another policy that supersedes our own. There came a time when Mr. Hearst —the morning paper, the Herald and Examiner, had two stations, that is, two stations which shared time. The arrangement for some reason did not seem to be successful, and Mr. Hearst suggested that the Herald and Examiner take over KYW on a commercial basis. There was quite a lot of pressure brought to bear in the organization at that time to have the Hearst newspapers go into radio in a broadcasting way——

Q. To establish a Hearst chain; is that right? A. Yes. That was combated by other executives, and as a result they made the experiment in Chicago of leasing KYW and trying it out, and the morning paper was given the opportunity.

437 Q. Are we right in assuming, when you use the word "experiment", that you mean that if these two stations worked out well with the policies you have described, the chain would be the next step? A. That would be a conclusion which I could not foster at all.

Q. Do you want to enlarge on your answer about the experiment, about this being an experiment? A. No. That was always just a case of the suggestion coming that the Herald-Examiner take over KYW and run it and see what happens; and that is what they are doing, and we do not have it any more.

Q. Did you make some arrangement with WBBM? A. Similar to the one with WIBO.

Q. Why did you give up WBBM and go to WIBO? A. My understanding of that is that there was another newspaper in Chicago that made a cash offer to WBBM which our publisher did not want to meet, on the basis that it was a question of giving service for service rather than buying time. That was his ideal of a newspaper-radio connection.

Q. Tell me if I am right in assuming from your last answer that the Chicago Evening American has an agreement with WIBO to give service. A. Yes.

438 Q. Do you know what the terms and amount of that service was or how they are based? A. No; it is rather indefinite. As I said in the beginning, we got together and developed a general agenda as to what we were going to do, and we left it to develop. There is no fixed maximum or minimum of service on either side.

Q. As a part of that agenda, is and I mean by "you", of course, the Evening American to *to* advertise Station WIBO? A. We are to carry display advertising from time to time.

Q. Are you to take over any of its debts? A. No.

Q. Are you to underwrite it financially in any way? A. No.

Q. Are you to render any service other than advertising and the use of the headlines and notices on your radio editorial page of value for WIBO? A. All the service we give

them in the way of news flashes, market reports and speakers is in addition to the display advertising. The news page, however, is not a part of the contract. That is not a commercial page. We have no financial arrangement.

Q. Who makes up the advertisements in the American—you or WIBO? A. Well, I do not, except in an advisory capacity. The advertising is usually written by the advertising manager of WIBO and the manager of the
439 Evening American who writes our advertising.

Q. Who is the advertising manager of WIBO? A. Mr. McPherson.

Q. Do you have a complete set of those advertisements? A. I have not; no.

Q. Have you personally made an examination of them? Have you seen them or looked at them and thought about them? A. Yes.

Q. You have followed them from time to time? A. Yes. I have observed them from time to time as they have appeared.

Q. How many times have they advertised Nelson Bond and Mortgage Company? A. The name, Nelson Bond and Mortgage Company, appears in all those display advertisements.

Q. How much of the writing refers to the business of the Nelson Bond and Mortgage Company other than radio as such? A. If I get what you mean, the only reference ever made to the Nelson Bond and Mortgage Company is in the form of that legend—"WIBO, owned and operated by Nelson Brothers Bond and Mortgage Company and affiliated with the Chicago Evening American." That is a sort of combination trademark of the station. We do not advertise them as such.

Q. Is the Chicago Evening American financially involved in the Nelson Brothers Bond and Mortgage Com-
440 pany business? A. No.

Q. Is Mr. Hearst; do you know? A. I doubt it. I do not know all of Mr. Hearst's investments, but I am absolutely sure he is not.

Q. How much does a full page ad. in the Chicago Evening American cost? A. There are two rates in the Evening American, a local rate for advertising——

Q. As to a full display page? A. (Continuing:) And another rate for national advertising. Do you mean the national advertising rate?

Q. No; just the local. A. Well, it might be a local advertisement and it might be classed as national. I think that would be classed as national. Institutional advertising is national whether it is national in scope or not. That would run approximately $1,500.

Q. A page? A. Yes. That is only an approximation. I can figure that out, 2,200 lines at 75 cents a line.

Q. How much is an hour's time on WIBO sold to you for? A. That I cannot state without referring to the rate card.

Q. Take this rate card and tell me, please. This is sold to you, not by you to the Underwriters and others. A. The Evening American-WIBO rate for the evening is $250 an hour for one time and a correspondingly lower rate for periods up to 52 weeks. $220 an hour for a 52-week
441 contract.

The afternoon rate is $150 for one time down to $135 on a 52-week contract. The morning rate, $140 per hour down to $125 on a 52-week contract.

My knowledge of WIBO rates is confined strictly to this card. I have never personally bought time over WIBO.

Q. How many full page display advertisements have you given WIBO since you made this contract with them? A. That would be a guess. A full page display like that (indicating), probably half a dozen or ten full pages.

Mr. Cook: When you say "like that", you mean the same size?

The Witness: A full page exclusively, I would not be able to answer. I suppose those run at times quite frequently, and again there are times when there is quite a lapse between them, and there will be a quarter page.

By Mrs. Willebrandt:

Q. Is the Chicago Evening American a separate corporation? A. Yes. It is owned by the Evening American Publishing Company, a Hearst subsidiary; an Illinois corporation.

Q. Referring back to this advertising, how many total hours of WIBO's time have you used since you have been

giving them this advertising? A. I do not know
442 that. We run approximately ten hours now. Ten hours a week, I think is about our schedule now.

Q. How many weeks have you been running? A. We have not run ten hours since the beginning; say 8 to 10 hours for a year, since the first of last October, from the first of October to the present date, about six months. I do not know what the total is; I am not a good enough mathematician.

Q. Referring to WGES, which is a Chicago station dividing time on 1360 kilocycles, it has time for sale, I believe? A. I assume it is a commercial station and has time for sale.

Q. Why could you not use WGES instead of WIBO? A. It has less time on the air than WIBO.

Q. You testified here to your plight if WIBO should be taken off the air. A. We might be able to use WGES, but it would be my belief that it would not be so effi-
443 ciently done as it is over WIBO.

Q. Why not?—because of interference? A. No; I don't know anything about the technical side. It is a station probably not so advantageously situated as to its position on the dial, and we have already established the position on the dial now occupied by WIBO through a long tenure of service, for the reason that KYW, at the time we had it in its latter days, also occupied approximately the wave length that WIBO is now occupying, and the audience has been for years accustomed to hearing the Evening American service over that wave length. There are a lot of Chicago stations that might be open to any kind of a service proposition, but I do not know.

Q. You say that WGES is not so well situated on the dial. You are not interested in where it is on the dial, just so it covers a certain area, so that you give service to the listeners? A. Yes, we are, because of the fact that we have been in approximately this position on the dial for a number of years with KYW before we went on WIBO.

Q. Do you know whether you could use WGES? A. I never had any negotiations with WGES.

Q. Would you want to modify your answer that you gave in direct examination relative to your plight if WIBO were taken off the air, if you made the same arrangement with WGES which you now have with WIBO? A. As I recall

my answer, I do not think I want to modify it. I think I modified it at the time.

Q. You used WBBM for a while? A. Practically
444 a year, I think.

Q. You were used to that position on the dial? A. That was the best we had at the time.

Q. Why didn't you go ahead? A. We had that only for a year, and then a year and a half with this station. You mean, to go to WBBM now? That is a Columbia chain station owned by the Columbia chain. They are not open to newspaper affiliations.

Q. Would you have to pay advertising rates if you went there? A. I doubt if any arrangement could be made with either of the chains for a newspaper affiliation. WENR would be the ideal one; but that is out of the picture.

Q. Am I right in stating that your desire to continue the programs that you are now putting out over WIBO would lead you to make a similar arrangement to what you have now with WIBO, to wit, exchanging time for advertising, but it would not lead you to buy any time? A. There is no indication that we would change our policy.

Redirect examination.

By Mr. Cook:

Q. Mrs. Willebrandt inquired as to the amount of time you used on WIBO, and you answered from 8 to 10
445 hours approximately per week. Did you mean to convey to the Examiner that you paid for all of that on commercial arrangements? A. No. That was the time that we serve WIBO with our news and market reports. That is our news service and other service over WIBO.

Q. How much time per week is used by the food period, the insurance period and the classified service period? A. Something less than an hour per week.

Q. Suppose that you did undertake to buy station time on KYW to furnish your present news and other public service, would that displace the service of KYW now otherwise employed? A. Yes; it would be apt to displace the service that is now being used at the time which we might possibly buy. The whole thing would be impracticable

from the standpoint of the policy that the two newspapers have.

Q. KYW is now using all of its public time that it can spare? A. Yes.

Q. And you would have to buy public time from them to be displaced—— A. We would have to break up some of our advertising to do it.

Q. And also displace some of their service? A. Some of the Herald and Examiner service; yes.

Q. You have had experience with three stations over a period of 8 or 10 years? A. Yes.

446 & 447 Q. Of the three services, which, to your mind, has been the most effective and useful? A. Well, we have learned a lot. I would say WIBO is more effective now than it was at the beginning. As we have gone on it has been more effective.

Q. Is it better service than you were furnished over KYW? A. Yes.

Q. It is better service than you furnished over WBBM? A. Yes; better organized and better analyzed.

Q. Is that operation with the radio station harmonious? A. Quite so.

Q. And that harmony lends to the better utility of the service? A. Yes, sir.

Q. As a public service station, such as WIBO is, and a newspaper service affiliated therewith? A. Yes, sir.

448 Recross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. Have you any Western Television display ads.? A. No.

Q. Do you carry any advertising of the Western Television Company? A. No; no display advertising that I know of.

Q. Any kind of advertising. A. We at intervals call attention to the Western Television programs, especially when they have some unusual artist like Tom Mix on W9XAO, probably once in a week or ten days.

449 Q. Do you know whether you carry any advertising of any kind whatsoever for the sale of mortgage bonds by the Nelson Bond and Mortgage Company? A.

I don't believe we do. I doubt if we have ever carried any. I do not remember.

Testimony on Behalf of Applicant WJKS (Resumed).

Ralph L. Atlass, a witness previously called and sworn on behalf of the applicant, resumed the stand and testified further as follows:

Direct examination.

By Mrs. Willebrandt:

Q. When did you say you became identified with this station? A. The purchase of 50 per cent of the stock of the station was in the latter part of March of this year, and I took over the position of General Manager of the station about the first of April.

Q. How much did you pay for it? A. $15,000 for 50 per cent of the stock of the station.

Q. Did you get a bargain, in your opinion? A. I think I did.

450 By Mrs. Willebrandt:

Q. What do you figure the station is worth? A. I think it would be easily worth three or four times that. It is very much like the condition of any stock now; it is very much deflated as to the sale price.

Q. What elements go into the purchase of stock of that kind? A. Do you mean, the value of the radio station?

Q. Yes. A. Generally speaking, there are a lot of elements that, in my opinion, go into the determination of value of any radio station. The first necessary thing for a radio station is to be able to be heard. There is a certain amount of equipment necessary to accomplish that purpose. After the production of this equipment it can be elaborated on for display purposes, for a concern that has something to accomplish in the way of institutional good will in the community other than through the radio. Various companies put out very ornate and elaborate institutions for the purpose of showing visitors through and adding to the prestige of the company that owns the radio station. Such elaboration in no way affects the ability of the radio station to render better service. The value of a

radio station, in my opinion, is usually dependent upon the community which it serves and the service which it gives to that community, with equipment necessary to put out a satisfactory signal.

451 Q. What is your responsibility or title in connection with the station? A. I am General Manager of the station and Treasurer of the company.

Q. I will ask if you have known Mr. Johnson of this station for some time? A. Yes; I have known Mr. Johnson quite a while, for more than a year, and have known of him probably for three years.

Q. When you finally bought the stock in the station and came in with a definite responsibility in the management and development of the station, what were some of the first things you have done? A. One of the first things I did was to go over carefully all the employees in the station. I also went over programs. Of course I did that before, to determine the general service that the station was giving, along with the personnel of the station.

Q. What, definitely, was your policy as manager of the station in the use of additional time if you are granted additional time? A. We wish to use the additional time to present programs of community interest, similar to those that Mr. Johnson described, to present them at various times during the day. That is, where we may have a foreign program presented now in the evening or morning or afternoon, I would like to see those programs presented possibly two or three times a week, not the same

452 programs, but the same type, in order that the community, which has a class of people who are subject to having their hours at home restricted more than those employed otherwise outside of that district, can hear these programs regardless of the time of day they are presented.

Q. Will you sell some time? A. Yes. We intend to sell sufficient time to make the station self-supporting and to improve the service as we go along. In fact, it is our purpose to sell enough time so that we could run 24 hours a day and have a 24 hour station service in the Calumet area.

Q. Do you have any present intention or purpose of hooking up with any of the chains, or developing the local policy that has been here outlined? A. We expect to de-

velop the local policy that has been outlined, and are not considering any chain connections.

Q. That is because of the particular conditions at Gary, and not because of any hostility to either N. B. C. or the Columbia? A. No hostility whatever. I feel that there is a distinct place in the radio picture for chain programs, and that there is also a place for community service.

Q. As a matter of fact, most of the people of Gary can listen to both the Columbia and N. B. C. programs most of the time during the day, can they not? A. They can.

Q. From Chicago stations? A. That is right.

Q. You said you wanted to make this actually and
453 completely a 24-hour station and give the same type of programs at periods during the 24 hours. Referring now to the various kinds of programs that are in the record, as to special features of this station will you give your plans, for instance, with respect to the "Learn to Speak English program"? What change would you make in that if you had more time? A. It should be properly presented three times a day in order that we can reach all of the people regardless of the shift they may be on, the mill workers. The program is going to be of more benefit to them than to any other people in the community, because they are unable to attend a regular school for that purpose.

Q. How about the Gary School System programs, with particular reference to the children's broadcasts? A. Those will be continued and distributed, and as a wider distribution of them is provided at different times of the day, to, if possible, arrange with the school system at different times in the week.

Q. In the limited time that you have given them on the Saturday hours at the present time, is there a considerable congestion, or not, in handling that type of feature? A. Yes; there is naturally a restriction on our ability to provide those programs all at one time. The service properly, instead of four hours at one time, would probably be more effective if there were three individual hours, or six, an hour at a time, rather than three hours.

Q. What would be the effect of classifying it and dividing it into districts with respect to the various dis-
454 tricts or sections of Gary and the Calumet region? A. In my opinion, I think the general interest in the

programs would be increased. There would be a more general desire, than there is even now, for conducting them.

Q. Mr. Atlass, how long have you been in the radio business? A. Well, since November, 1923. The first was WBBM. Before that I had been interested in it probably ten or twelve years and had the first amateur radio station, wireless, out there, at that time in Illinois.

Q. You have had a continuous contact with and participation in the radio art from 1923 up to the present time? A. Yes. We first operated a station—I might say there was no such thing as commercial radio at that time, and we had a station at that time as a matter of amusement to ourselves and the people in the community. Then I followed the development of the radio industry all the way through broadcasting and have been associated with it constantly.

Q. This experience of yours has been in and around the Chicago and nearby area? A. My first experience in radio was in the small town of Lincoln, Illinois, with radio broadcasting later in Chicago. So I feel that I can appreciate com[illegible]nity service as well as metropolitan service.

Q. Have you during the past eight to ten years made a practice of listening to various radio stations? A. I have.

Q. You listen to the Chicago stations, practically
455 all of them? A. Yes. I have been very much interested in what all the Chicago stations have been broadcasting.

Q. How about Indiana stations? A. I have listened to those regularly, those that I could hear. I might say I only hear occasionally those stations. WOWO is the only station I can hear regularly in the evening in Chicago with any satisfaction. I have listened to the stations broadcasting at Indianapolis.

Q. Your home and your family are in Chicago, are they not? A. They are.

Q. Have you listened regularly to station WJKS? A. I have tried, naturally, of late particularly, to listen to their programs at home, and it is almost impossible to hear it because of interference on that frequency.

Q. That is, of course, in Chicago? A. Yes.

Q. You live outside of their good service area, do you not? A. Assuming that their good service area should be about 40 miles, I live within it. I live rather close to the

Loop in Chicago, 3800 North. That is about four miles north of the business district.

Chief Examiner Yost: You are about 40 miles from the station at Gary?

The Witness: I would say, between 35 and 40 miles.

By Mrs. Willebrandt:

Q. Have you during the past year particularly frequently listened to WJKS within its good service
456 area as defined by the Radio Commission in the WGY case? A. Yes; I have. I have listened at Gary. Probably a week ago at Mr. Johnson's request I came out to see the station. He was interested in having me know the work he was doing at that time; and I listened to it in the evening. There was considerable interference then within a radius of five miles of the transmitter. I recently listened within three miles of the transmitter and had considerable interference on the frequency.

Q. When was that, Mr. Atlass? A. Several times within the last two or three weeks.

Q. Over what were you listening? A. A regular standard Radiola receiver, the latest type of superheterodyne.

Q. Did you listen always at one station? A. You mean, one place of receiving?

Q. Over one set, I should have said—or did you listen over various sets? A. I listened over the set which is in the studio of WJKS at Gary. When I noticed heterodyning I listened at a radio store in Gary and heard it. At home I have one set that I use regularly, and I have listened over other sets and heard interference.

Chief Examiner Yost: At what hours did you notice the most objectionable interference?

The Witness: Our schedule between 7 and 9 o'clock and between 10:30 and 11 in the evening.

By Mrs. Willebrandt:

457 Q. What type of interference? A. Heterodyning and cross talk. On several occasions I heard the call letters WFEL announced in background.

Q. How consistent was this interference? A. You mean, of the same magnitude every time I listened?

Q. Did you ever during the night time hours find a period when the reception from WJKS was clear and free of interference? A. I have listened after 12 o'clock when there was no interference; that is, midnight.

Q. Referring, now, to these exhibits, Nos. 5 to 26, and your computation which is marked Exhibit 27, will you tell me whether WIBO has any agricultural or educational broadcasts whatsoever? A. There were none specified in their license application for renewal.

Q. The amount of their religious broadcasting is what? A. 25.7 hours a month. All the rest is entertainment.

Q. Entertainment and commercial? A. 360 hours of entertainment; 25.7 hours of religious, and no agricultural or educational.

Q. You did not list the commercial? A. No; I did not list that for any station.

458 Cross-examination on behalf of Respondent WIBO.

By Mr. Boyd:

Q. Are you now connected in any way with radio station WBBM? A. I am not.

Q. At what date did you divest yourself of your interest in that station?

Mrs. Willebrandt: I object to that. It is incompetent and entirely irrelevant to this issue.

Chief Examiner Yost: I cannot see how it is material at all.

Mr. Boyd: May I state to the Examiner that Nelson Brothers Bond and Mortgage Company think it is material in this respect. We offer to prove by this witness that he owned a substantial interest, or such an interest that it amounted to a controlling interest, in radio station WBBM.

Mrs. Willebrandt: If he wants to show he has it now on the theory that it will conflict in any way with the proper service to the public in his connection with the present station, I think that would be material; but anything that goes into the past is utterly incompetent.

Mr. Boyd: I should like to make a statement of what I want to prove, before you rule on this question, Mr. Examiner.

Mrs. Willebrandt: May I say that some types of statement of what one intends to prove are improper for the record.

Chief Examiner Yost: The Examiner found in what is popularly known as the high power reports that the
459 ownership was secondary. The first consideration is service to the public. The ownership is merely incidental.

Mr. Boyd: I think I can show by this witness that it is more than incidental; and that is exactly what I want to prove if you will permit me to do so. Here is a situation that involves regional channels and all sorts of channels. WBBM occupies in the city of Chicago a clear channel. It is some 35 or 40 or 50 miles from the present situation of this station. This witness owned a substantial interest in WBBM, and he now goes across the state line and owns a controlling interest in WJKS and comes back into the city of Chicago.

Chief Examiner Yost: It may be that his doing that might better serve public interest, convenience and necessity.

Mr. Boyd: Possibly; but it seems to affect our rights as citizens of the State of Illinois.

Chief Examiner Yost: You do not claim he had no right to purchase this stock, do you?

Mr. Boyd: No. Any man has the right to spend his money in this country as he sees fit if he does not interfere with any other person's rights.

Chief Examiner Yost: The question, as the Examiner sees it, is the public interest, convenience and necessity.

Mr. Boyd: Does the Examiner rule that the original question is not material?

Chief Examiner Yost: The Examiner cannot see where it is material as to how this witness divested his ownership in WBBM. He has admitted that he owned it, and the records of the Commission show that. The Examiner has knowledge of that from this and other hearings.

460 Mr. Boyd: But you hold it is not material to the issues in this case, that the time of the severance of his relations is not material?

Chief Examiner Yost: Is not material.

By Mr. Boyd:

Q. Did you know, Mr. Atlass, at the time you purchased the interest in the Johnson-Kennedy Radio Corporation that it was operating on a frequency of 1360 kilocycles? A. I did.

Q. Did you have complete knowledge and information with respect to the interference then existing on that channel when that station was broadcasting? A. I did. It was called to my attention *to* Mr. Johnson.

Q. Before making the purchase you had determined what you believed to be the difficulties being encountered by that station in broadcasting, or, as you contend, difficulties with broadcasting on that frequency, at the time of the purchase of the stock in the Johnson-Kennedy Radio Corporation? A. You mean, was I aware that there was interference there?

Q. Yes. A. I was.

Q. Did you make the purchase of this stock prior to or subsequent, or did you conclude your negotiations to purchase prior to or subsequent to the setting of the
461 date for this hearing? A. I don't know when the hearing was set.

By Mr. Boyd:

Q. When you owned Radio Station WBBM did you not broadcast for a long period of time on a frequency substantially that now used by radio station WJKS?

Mrs. Willebrandt: I object to that as having no bearing upon the issues in this particular case.

Chief Examiner Yost: What is the purpose of the question, Mr. Boyd?

Mr. Boyd: The purpose of the question is to show that he has had experience on that frequency, using radio station WBBM, and knows something about overcoming the difficulties that might be on that frequency by actual experience with that frequency or substantially that frequency.

Chief Examiner Yost: You mean to infer that that is one of the reasons that prompted him to apply for it?

Mr. Boyd: No. I simply want to find out if he does not know, first, something about curing conditions on that

frequency, and to ask him if he has tried to cure them, if he knows what they are and how to cure them.

Chief Examiner Yost: The Examiner thinks that is proper. He may answer that.

The Witness: We broadcast on 1330 kilocycles. That is thirty kilocycles removed.

By Mr. Boyd:

Q. Thirty kilocycles removed from the present
462 assignment? A. Yes.

Q. Did you experience on that frequency, operating in the city of Chicago, a condition of interference which you were able to overcome by the use of proper engineering principles and by the correction of conditions within the station, in that operation?

463 Q. Have you had any experience with the detection of interference on the frequency upon which WBBM operated, within 30 kilocycles of the present assignment of radio station WJKS?

Mrs. Willebrandt: I object to this as being improper——

Chief Examiner Yost: Unless it is laying a foundation for something that has value.

Mr. Boyd: That is what I am trying to do. I cannot ask this witness until I find out what he knows; and I want all he knows.

The Witness: I would like to ask what you mean by detection of interference.

By Mr. Boyd:

Q. By detection of interference I mean the methods employed in determining what the interference was and the method applied in the correction of the difficulties which were encountered on the frequency that I have mentioned.

The Witness: I might state to the Examiner before answering, that I have not qualified as an expert. I have never made any observation of interference to measure the millivolts or microvolts per meter of the inter-
464 ference. The only observations I have made have been on standard receivers, and I have listened on standard receivers and I believe I have listened to radio enough to know when I hear heterodyne and when I hear

cross talk, and I know approximately the frequency of the interference. I made observations on a radio receiver.

By Mr. Boyd:

Q. As you did in this case? A. Receivers are much more sharply tuned than they were four or five years back.

Q. Did you find that in the use of 1330 kilocycles in the city of Chicago you got unusual and wide coverage on that frequency?

Mrs. Willebrandt: I object.

By Mr. Boyd:

Q. Did you find that you traveled thousands of miles effectively on that frequency? A. The effect of the operation of WBBM on that frequency at that time was that we were unable to serve effectively and consistently a radius of 10 or 15 miles about Chicago. We had excellent reception at distances varying from 800 to 1200 miles. In fact, field intensity measurements, made not by me but brought to my attention, showed we had a more consistent
465 signal in Boston, Massachusetts, measured by Dr. Greenleaf Whittier Picard who was conducting observations for Harvard University. The signal was more consistent in Boston than it was six or seven miles from our transmitter.

Chief Examiner Yost: Your station was then using a power of 25,000 watts?

The Witness: No. We originally started with 1500 watts, and the power was increased to 10,000; but even though the power was increased to 10,000, we could not approach what in this instance we are asking for Gary a community service; that is, we did not have consistent reception for 30 or 40 miles about the station.

By Mr. Boyd:

Q. What do you mean by consistent service? A. That a person may tune in any time of the day or night and be able to receive the signal without having interference——

Q. Do you mean that a station that was using a frequency of 1330 kilocycles could not be heard consistently in the city of Chicago during that period? A. We had an

advertising account of a man who was on the station for three years and never heard the station. That man was Mr. Zooker, vice-president of Stewart-Warner Corporation.

Q. What changes have you made in the foreign language broadcasts since you have been general manager of the station? A. None. I have not made any.

Q. I will ask you if you will state to the Examiner
466 exactly how a foreign program is put on the air by your radio station, stating the language used and the statements that are made, how, generally speaking, those programs differ from the entertainment standpoint from any other program broadcast in any other language. A. Mr. Johnson is better able to state that; and, if the Examiner desires, we have a program man here now to give complete information.

Q. In the first place, do you know of your own knowledge anything about that, as general manager of the station? A. I know generally that these programs are of music that appeals. There are short talks. The time is not set. The talks, before they are put on the air, are read by some one, generally an interpreter out there, to inform us as to what is in those talks, so that something will not go in that we do not know anything about.

Q. Do you put them on the air in the English language as well as the foreign language? A. That varies. Sometimes both—generally both.

Q. Usually both. There is a translation from the foreign language to the English language? A. I imagine there is substantial variation in programs. Sometimes they are announced in English; sometimes in the foreign language, or sometimes in both.

Q. Are you testifying from what you know or from what you imagine? Which is the fact? A. I have heard them in the studio broadcast the programs.

467 Q. In respect to the "Learn to speak English" program, how is that program put on the air? A. By whom?

Q. What is the name of that teacher? A. Hayes.

Q. Do you know what relation that person has with the radio station owner? A. Yes. I think Miss Hayes is related to Mr. Johnson.

Q. I will ask you how Miss Hayes proceeds to teach the English language over the radio; how much time she devotes to that activity. A. The program, as I recall, is not less than 15 minutes in the evenings, throughout the week. I do not believe it is put on on Sunday; and the method is the same, so I am informed, as used in the Gary schools.

Q. How does she go about it? A. I don't believe I can answer that.

468 Q. How many English words or how much English can be taught to a non-English-speaking person in 15 minutes a day? A. I am not familiar with that.

Q. You have studied foreign languages yourself, of course? A. I have.

Q. Have you any idea what knowledge of English might come to a person listening to Miss Hayes on the air? A. It would depend upon their ability to absorb the teaching, in my opinion.

Q. You do not know how much of the language is absorbed by any listener to the station? A. I have observed students studying foreign languages who could not remember six words a day, and others, possibly 200.

Q. How do listeners ask for instruction, or how does a listener, listening to Miss Hayes' program, make inquiries of her regarding anything that he may have misunderstood or failed to understand?

Mrs. Willebrandt: I object to that.

Chief Examiner Yost: He may answer it if he knows.

Mrs. Willebrandt: It is so manifestly argumentative; and the witness cannot reproduce a foreign language program.

By Mr. Boyd:

Q. How many languages, besides English, does Miss Hayes speak? How many of the sixty odd that are commonly spoken within the Gary region does she speak fluently enough to give to the listener a knowledge of the English language while instructing in English over

469 the air? A. I don't know.

Q. Do you know whether or not she speaks any other language? A. I do not.

Q. You spoke of the good service area of radio station WJKS. What do you consider is the good service area of WJKS to be expected. A. I have certain figures set down in the WGY case. From listening to various stations around the country, I think the figures are about what is normally to be expected. In this case it is 35 to 45 miles, I believe. I think that is what Mr. Ring testified was the area to be expected.

By Mr. Cook:

Q. You heard Mr. Johnson testify? A. I did.

Q. You heard him say that he went to Gary and engaged in business undertakings there and that his operation of this radio station was in return for their kindliness to him? A. That was part of his testimony.

Q. Are you of the same mind toward Gary? A. I feel that any radio station, to be operated in the public interest, convenience and necessity, ought first to serve the community. A station may have a clear channel service,
470 which takes it out of the community classification. Then there is a place for community stations which should put on programs that are of particular interest and importance to the people within about 30 or 35 or 40 miles of the station.

Q. And it is your purpose to continue the type of program he has conducted in Gary? A. It is; and I might state further that we expect to sell advertising and that we expect to develop this station into a 24 hour station, and that some of the advertising will be used to develop the station further than it now is.

Q. As he has used it in the past? A. I hope to be more successful in securing advertising for it.

Q. The town of Gary is a steel mill town; that is its chief industry? A. Yes.

Q. And the mills run on three shifts? A. Yes; so I am informed.

Q. Do the schools run on three shifts? A. Not to my knowledge.

Q. Do the housewives and others not in the steel mills conduct their life on three shifts? A. I imagine that the conduct of their life according to the hours is quite different from a community such as Chicago.

Q. But the schools do not run on three shifts? A. No.

Q. But you are tripling your service, if you have
471 24 hours of time, and will not reach the school? A. What do you mean, it will not reach the schools?

Q. The children will be at their schools on a regular normal one-shift basis during the daytime. A. The school children will, of course; but the people who are not attending school, and the ones we can probably do the most good for, will be reached.

Q. The steel puddler's wife works on the same shift as her husband? A. I imagine household affairs have to be adjusted to the working hours of the man of the house.

Q. You think a 24-hour service is of vast importance to the housewives, the school children and business men of the town? A. It might, to some of them, yes.

Q. They don't hear programs on receiving sets in the steel mills, do they? I am serious. Take the shift from 12 midnight to 8 a. m.: there is no use for radio service in the steel mills, is there? They do not listen to the radio while they are puddling steel? A. No; but after they come off the shift at 12 o'clock, or 4 o'clock in the morning it would be distinctly to their advantage to have a radio program.

Q. Do you know from your sociological experience that a man stays up three or four hours in the middle of the night to entertain himself during the dark hours of the night, or does he go to sleep? A. I think it is safe to assume that when a man comes off from work and has certain hours for relaxation, he certainly will stay up some
472 of them.

Q. And you mean to accommodate your service, if possible, to those individuals who wish to stay up all night after working in a steel mill for eight hours? A. Yes.

Q. That applies only to steel mill workers? A. Everything about Gary and Hammond and Laporte, throughout the steel district, is more or less dependent upon the steel mills.

Q. Do grocery stores stay open 24 hours? A. Not to my knowledge.

Q. Do garages stay open except for ordinary night service, on account of the pressure of business, in each eight-hour shift? A. I think it would be an influence; yes.

By Mr. Cook:

Q. You said you meant to continue the type of programs for 24 hours if you could get full time. You said you meant to extend the existing service as testified to by Mr. Johnson, so that it would cover 24 hours. A. That is
473 right.

Q. And whereas it is only going for eight hours now, you will just proceed with the following two periods with the same type of programs? A. Yes.

Q. Is it your purpose to charge for the foreign language hours or periods? A. A strictly educational program should be presented without charge.

Q. Are you aware that the Polish program has been paid for in the past and is being paid for? A. I am not aware of any Polish programs being paid for.

Q. You are not aware that one has been paid for in the past? A. I am not familiar with every program that has been broadcast over the station.

Q. How about the Irish program? A. We may sell programs with types of music, whether it is Irish, or Bohemian or Polish or what not, the same as WIBO or WBBM or WMAQ.

Q. Are you aware that the Irish program has been paid for? A. I am not.

Q. If it had been paid for, or the Polish program had been paid for, or some other foreign language program had been paid for in the past, would you assent to the statement that Mr. Johnson made that that was public service to the town of Gary? A. Certainly a program can be
474 public service and still be a sponsored program.

Q. Have you consulted with any of the advertisers on WJKS as to their satisfaction with the advertising service? A. Those that are now using the station?

Q. And have used it in the past. Have you consulted with any of them? A. No; I have not.

Q. Did you study the radio station in order to make up your mind before you purchased stock, by ascertaining the satisfaction of advertisers with the station? A. I ascertained the type of programs that were being broadcast by the station, and the standing of the station in the community.

Q. Did you hear that any of the advertisers said they were not satisfied with the programs that had been used?

The Witness: No; I did not hear that. I will elaborate on that to say that there was a Mr. Edelson employed there, whom I have known by reputation and personally over a period of years, and I would not care to have that man in my employ.

475 By Mr. Cook:

Q. Are you familiar with the ratio of income from advertising of this station over a period of two or three years? A. What do you mean by "ratio"?

Q. Has it increased or declined? Has is been increasing? A. I cannot answer that.

Q. You do not know? A. No.

Q. You did not go back over the financial experience of the station before you made up your mind to purchase? A. I was not interested in that. What some one else was able to do had no bearing on what I could do.

Q. Past earnings did not concern you? A. Not a bit.

476 By Mr. Cook:

Q. Is it not a fact that a radio advertiser looks to the popularity of a station? A. I would say that is one of the factors.

Q. The number of listeners? A. That is one of the factors.

Q. Is it not the main factor? A. No, not in selling.

Q. What is the factor that excels that in importance in the advertiser's mind? What is the superior factor? A. Assuming that a station has an established audience, which we cannot say—we cannot say there are ten listeners or ten thousand or ten million listeners. We are, of course, able to say that there are a certain number of receiving sets in the community. Field test measurements can be made to determine whether or not the station is providing signals that will be satisfactory to that community. As far as circulation goes, one station can on such a basis show a circulation as great as that of what you may think or the Examiner may think or any one may think is the most popular station in the community or in the
477 service area. I would say, first off, that the results of radio advertising over a station depend largely on how the account is handled, the same as with regard to

a newspaper. That is, you may advertise in the newspaper with the largest circulation of any in the city and yet not get the results that you would get with proper copy, proper handling, in one of the papers of smaller circulation in the city.

By Mr. Cook:

Q. Are you aware of the patronage of this station in the past by local merchants of Gary? A. I am not
478 familiar with it; no.

Q. You know nothing of its advertising patronage in the past? A. The information I have was obtained from Mr. Johnson who said it was well patronized in Gary and it had been developed as far as he cared to develop it.

By Mr. Cook:

Q. Did he give you the figures? A. No; I did not ask for the figures.

Q. Do you approve, as the general manager of the station, of installing new transmission apparatus? A. Yes. I think it would be very well to install a new transmitting apparatus.

Q. Why? A. In order that we may have duplicate transmitters and be certain of maintaining a 24-hour schedule.

Q. You have examined that plant? A. Yes.

Q. Is it in a fire-proof building? A. I could not answer that. I am not qualified.

Q. As a matter of fact, you know it is in a frame building, do you not? A. A wooden building; yes.

479 Q. Which apparatus are you going to use as the main apparatus, with the other in reserve? A. The new apparatus, of course.

Q. Why? A. I think there will always be improvements in transmitters, and a transmitter made by the same company next month will probably be an improvement over one made two months ago.

Q. You expect to get better service out of this new apparatus? A. Probably more economical and consistent operation.

Q. I hand you the application of radio station WJKS received at the Department of Commerce on December 30, 1930, and ask you if attached to that application there is

a statement of programs? A. There is a statement of programs.

Q. I will ask you whether your station is broadcasting ship news, the arrival and departure of vessels at the city of Gary. Do you know? A. I understand that is a regular broadcast. I have not heard it broadcast.

480 By Mr. Cook:

Q. Did you, in your examination of this station, examine the log of the past performance? A. Not in detail.

Q. Was there a log? A. I asked Mr. Johnson if there was, and he showed me a log which appeared to be in perfect order.

Q. Are you aware whether or not they advertised programs that they did not attempt to adhere to? A. I am not aware of any such thing.

481 Q. Are you aware that they ever ran that station without a licensed operator? A. I am not. Before I purchased the station I called the radio supervisor and asked if there were any charges of any kind standing against the station, and he said there were not.

Q. That is not the question I asked you. Are you aware that they would run that station on occasion in the absence of their operator with an operator who was not licensed? A. I am not aware of it.

Cross-examination on behalf of respondent WPCC.

By Mr. Clifford:

Q. Mr. Atlass, you have testified that you have been engaged in the radio business since 1923? A. That is right. I would like to qualify that. Not in the radio business; I have been engaged in broadcasting.

Q. And that you are familiar with the broadcast radio business in the country districts as well as in the metropolitan districts? A. Yes.

Q. And that you have built up various stations and have sold those stations? A. I did not testify to that effect.

Q. Is it true that you have sold some of the stations that you have developed, broadcasting stations? A. A

482 station, not stations.

Q. You also testified that you purchased a one half

interest in this station at Gary? A. That is right.

483 Q. Would or would not the value of Station WJKS be enhanced if this application is granted? A. The grant of the application will not enhance the value of it. If we are able to use the facilities granted in such a way that we would increase, I might say, public acceptance and greater responsiveness to the station, it would be increased by that use of it.

Chief Examiner Yost: The Examiner was going to suggest that it is generally recognized that the 560 frequency is more desirable than the 1360 frequency; is not that true?

484 The Witness: It is true in certain communities. If I were operating a station out on the prairie somewhere and there was no extensive population within 25 or 30 miles of the station, I would want to depend upon listeners at a distance of several hundred miles or more, and I think that a higher frequency would be more desirable, in my opinion.

By Mr. Clifford:

Q. That is, 560? A. No; 1360.

Chief Examiner Yost: But you do regard the 560 frequency more desirable for Gary than 1360?

The Witness: Yes. I think that frequency would be more effective in that area.

Mrs. Willebrandt: At this time, Mr. Examiner, I would like to offer in evidence depositions taken pursuant to the Commission's order; and although these depositions are bound together here, and were when they were sent in, and I feel that I am not at liberty to unbind them, there are three that I do not offer and do not think properly belong, because the names do not properly correspond to the names on the order of taking.

Mr. Newman: Do you mean that they were not requested with the order, Mrs. Willebrandt?

Mrs. Willebrandt: Yes. Therefore I would introduce the depositions as bound and ask the Examiner to disregard and exclude Clyde Hunter, Arnold R. Fox and

485 Charles Elmer Hawkins. Otherwise the depositions correspond exactly with the list.

Mr. Cook: May I ask what the nature of these depositions is?

Mrs. Willebrandt: The three that I am asking to have excluded are the depositions of Clyde Hunter, Arnold R. Fox and Charles Elmer Hawkins. Those three names did not appear on the order of taking.

Chief Examiner Yost: They will be excluded from the testimony.

Mr. Cook: I am asking counsel what the general substance of the depositions that are to be offered, is. What are they about?

Mrs. Willebrandt: The substance of these depositions—each is very brief——

Mr. Cook: What is it, in a general way? What is shown?

Mrs. Willebrandt: For instance, John A. Costello, the first name down, is a Catholic priest who broadcasts over this station and serves definitely a group of communicants, or parishioners, I guess I should say; and he states that he uses the facilities of this station and depends upon them, regards them highly, and pays nothing for the time.

Mr. Cook: And I assume others are commendations of the station?

Mrs. Willebrandt: Yes. There are ministers of protestant denominations; there are representatives of civic organizations——

486 Chief Examiner Yost: These depositions were taken pursuant to authority given by the Federal Radio Commission with proper notice to the respondents. Were they represented by attorneys?

Mr. Cook: No; and if your Honor please, we are compelled to make an objection to the receipt of the depositions.

Chief Examiner Yost: Upon what ground?

Mr. Cook: Upon the ground that the notice that the respondent Nelson Brothers Bond and Mortgage Company received was received by them on April 20, 1931, at 2:30 p. m., and the notice was to take depositions on April 20, 1931, at 1 p. m. We had no notice in time to be at the place of the taking of the depositions——

Chief Examiner Yost: The same day?

Mr. Cook: Yes—and were not served in season to be present and to cross examine the deponents. The deposi-

tions were to be returned to the Commission not later than April 22, 1931, at 10 a. m.

Chief Examiner Yost: The Examiner is of the opinion that the depositions are not properly admissible unless the notice was received by Nelson Brothers in time to present their appearance at the taking of the depositions.

Mrs. Willebrandt: The notice was mailed by the Radio Commission.

Chief Examiner Yost: Does the date of the request for the taking of depositions appear?

Mrs. Willebrandt: Yes. Application was made on the 15th and granted on the 17th, and the notices were mailed out by the Radio Commission.

487 Mr. Cook: To make it clear, the notice was posted on the 18th of April, which was Saturday. There was Sunday intervening, and it was received on April 20 by the respondent, and the hour of the receipt was 2:30 p. m., according to our memorandum. The notice to take the deposition cited Monday, April 20, 1931, at 1 p. m., as the hour for commencing to take them, and we were not present and were unable to be present and were not represented in the taking of the depositions.

Chief Examiner Yost: In the Examiner's opinion there ought to be testimony to establish the time of receipt of that notice. Have you somebody qualified to testify to that?

Mr. Cook: I will introduce Mr. Alvin Nelson.

Testimony on Behalf of Respondent WIBO.

Alvin Nelson was called as a witness for and on behalf of respondent WIBO and, being first duly sworn, testified as follows:

Direct examination.

By Mr. Cook:

Q. What is your relationship to Station WIBO, Nelson Brothers Bond and Mortgage Company? A. President.

Q. I hand you a paper. Have you seen this before? A. Yes, sir.

Q. That is the notice of taking depositions at Gary, Indiana, at 1 p. m., April 20, 1931? A. Yes.

Q. By examination of this paper can you advise
488 as to when it was received at your office, received by you? A. Received by us at 2:30 p. m. on April 20.

Mrs. Willebrandt: Just a minute. Have you asked him whether he received it?

The Witness: I received it. It was directed to me. Any matters from Washington are referred immediately to my attention.

By Mr. Cook:

Q. Did you receive it as promptly as possible in the course of your business arrangements in the office? A. Yes, absolutely.

Q. And you took immediate action in what way? A. I called Mr. Boyd.

Q. Mr. John Boyd, your counsel? A. Yes, sir. He said there was no way we could get to Gary. I could not have made it if it had come in earlier in the day. Gary is 40 miles from our office.

Q. Across the city of Chicago? A. Yes.

By Chief Examiner Yost:

Q. Was it received in the first mail on Monday morning in your office? A. No, sir.

Q. Are you certain it was not included in the first delivery of mail? A. I cannot say as to that, Mr. Examiner.

By Mr. Cook:

Q. Is this the envelope in which the paper arrived? A. Yes. This is the only one I received.

489 Mrs. Willebrandt: That is a carbon from my office.

The Witness: Unless it came in later. This is the only one we had when I left Chicago.

By Mr. Cook:

Q. This postmark shows it was posted in Washington, according to the stamp, April 18, 3:30 p. m., 1931. The Chicago receipt mark is not present. What is the fact. Were you able to attend in time, under that notice? A. No, sir. We could not possibly attend.

Q. You communicated with your counsel, Mr. Boyd, upon its receipt? A. Yes.

Q. Mr. John Boyd is your counsel, is he not? A. Yes.

By Mrs. Willebrandt:

Q. What time did you telephone Mr. Boyd? A. Immediately on receipt of it.

Q. Was it a long distance telephone call? A. It may have been; I don't remember. He might have been in Washington or at his home.

Q. You do not know where he was? A. No——

Mr. Cook: Mr. Boyd, counsel for Mr. Nelson's company, was at the Willard in Washington and received word there.

By Mrs. Willebrandt:

Q. And did you notice the date of the taking of the deposition? A. Which date?

Q. Immediately upon its receipt. A. I immedi-
490 ately read it and called Mr. Boyd. I did not understand exactly just what it was, and so I called him. He said, "You could not make Gary now, anyway." I said "No; it would be impossible to."

Mr. Boyd: He called me on long distance telephone, I think, about 3 o'clock in the afternoon on Monday, and I asked him to read the notice to me. That was the first information I had had concerning the matter. Realizing that the notice had arrived late, I gave it no further consideration.

Chief Examiner Yost: It would seem that it should have been delivered in the first mail on Monday morning, leaving here the Saturday previously.

Mr. Cook: I think it should; but the fact in the case is that we all know there are delays in mail. A notice the evening before that would have been, under any circumstances, the scantiest possible time to reach a distant point on a deposition taking. It would be scant time even in the very city in which the deposition taking was to be held.

Chief Examiner Yost: It was a very short notice.

The Witness: It would have been a matter of minutes.

Chief Examiner Yost: Was a notice also mailed to Station WPCC?

Mr. Clifford: Yes; I have a copy of it, but I do not know when it was received. My client is not here.

Mr. Cook: There is a further possible objection, ample as the first one is. Under the order for the taking of these depositions it was required by the Commission that the depositions taken should be transcribed and executed
491 in the usual manner and should be filed with the Commission at its office in Washington, D. C. not later than April 22, 1931, at 10 a. m. Therefore, if these *were* depositions were taken according to the order, at 1 o'clock, this mass of matter transcribed and put into the mail on the Capital Limited could not have arrived in Washington earlier than the following day, which was the 22nd, the depositions having been taken on the afternoon of the 21st. While there is no stamp of the time of the depositions, they were received here April 22, 1931, at the Legal Division, and a stamp to the effect that they were received from James W. Baldwin, secretary.

I think it can be taken notice of that mail arriving on the Capital Limited at 9 o'clock cannot be distributed and that part come here by 10 o'clock. That is not the first morning mail.

Chief Examiner Yost: The Examiner does not regard that as anything like as important as the other.

Mr. Cook: It is not. It is an additional reason, however, why the order of taking has not been complied with.

Chief Examiner Yost: It seems to me to be a matter of proof.

Mr. Smith: I personally delivered them to Mr. Reynolds. It was before 9:30 in the morning.

Chief Examiner Yost: That would be a substantial compliance. But the fact that respondents did not receive the notice in time to attend the hearing is important. Perhaps the taking of the depositions had started before you received it?

492 The Witness: Yes. They started at 1 o'clock.

Mrs. Willebrandt: We can only presume that mails will take their ordinary course. A delivery of this notice the first thing in the morning, unless there was delay in the office of Mr. Nelson, would have made the notification reach him before 11 in the morning. That would have been ample time to communicate with the examining officer, the officer named in the order of the Commission as the officer to take

the depositions, and ask for a reasonable continuance. It would have been granted, or, if not granted, would have laid a proper premise for objection to the depositions. Nothing like that was done.

The delay that may have been occasioned before the matter reached Mr. Nelson's desk, when the Commission's own order was not issued until the 17th, is a delay that he must take the responsibility for, and I believe the Examiner should not excuse them from that.

Chief Examiner Yost: The depositions may be marked for identification. It is now time to adjourn.

(Two copies of depositions referred to were marked by the reporter for identification Applicant's Exhibit No. 28.)

Mrs. Willebrandt: I offer as additional proof, rebutting the inference—it is only an inference—that the mail did not reach Mr. Nelson's office until too late, the fact that exactly the same notice did reach other Chicago addressees early in the morning.

Chief Examiner Yost: Further consideration will be given the matter tomorrow morning upon reconvening, and further testimony will be taken to determine the
493-496 mission or rejection of the depositions.

Mr. Cook: Will you keep in mind the fact that it was impossible to get there, and that we were not represented?

Chief Examiner Yost: Of course if they had notice and did not appear, that would be their option, if they did not want to appear.

Mr. Cook: But the fact is that we were not represented, and the fact also is that by the acutest of diligence we could not have reached the place of the taking of depositions in time.

Chief Examiner Yost: The Examiner will consider all that.

497 Mrs. Willebrandt: At this time I would like to suggest, in consideration of the matter which is pending before the Examiner for decision concerning the sufficiency of the notice upon which the depositions were taken, that the Examiner take judicial notice of the fact, which I am perfectly willing to prove if the Examiner does not deem it propor to take judicial notice of this fact, and that is that

all mail that reaches Gary goes to Chicago first and
498 is shuttled back to Gary. I can bring a witness from the Post Office Department to prove that fact. It is one of those matters of Government routine which I do not know whether the Examiner could take judicial notice of or not, or whether the other side are willing to stipulate to or desire proof upon. I think it is material for the Examiner to have that fact before him in determining the sufficiency of the notice, because I do offer to the Examiner proof of the fact that the notice to take these depositions reached Gary at 9 o'clock Monday morning by ordinary mail.

Mr. Newman: Was that particular notice mailed by the Commission?

Mrs. Willebrandt: Yes, and so also was the carbon mailed out. I am not sure whether you are referring to the carbon which was mailed from my office or the one which was mailed by the Commission.

Mr. Newman: The notice to the respondent was mailed by your office, was it not?

Mrs. Willebrandt: We mailed carbons. I do not know whether the Commission mails out carbons or not; but we mailed carbons to all parties immediately.

Chief Examiner Yost: In the absence of a stipulation or agreement by counsel for all parties to the hearing the Examiner would rule that the proof would be necessary.

Mr. Boyd: So far as the handling of the mail is con-
cerned, it does not make any difference to us. There
499 has been an absolute failure of notice. That is what we are concerned about. The fact is we did not get the notice, and that is all we are concerned about. Whether there was a delay in the mails, the fact that they had to bring mail back to Gary, or whether they threw it off B. & O. No. 5—if it had been thrown off No. 5 it would have been delivered earlier in the morning; if it was handled on a later train, of course it would not be. But the proof of the handling of a particular letter does not seem of any concern here.

Mrs. Willebrandt: Then I will give the Examiner all the proof we have with respect to the matter, if that becomes a legal matter based upon such proof as we are able to give the Examiner to weigh as a court of equity would be obliged to do, as to the sufficiency of this notice.

I maintain that the notice is sufficient upon the proof which we proffer and which we can give as against the testimony which has here been given by the respondent in the case, that the stamp in his office shows it was received in the afternoon and that it did not reach his desk until afternoon.

As against that, the proof which we have is that the notice was mailed from Washington on Friday evening. The Examiner will take judicial knowledge of the fact that it would, under normal conditions, reach Chicago on Sunday; and then that there was a delivery of a similar notice on the 9 o'clock mail which had to be shuffled back to Gary; that there was a receipt of this notice early Monday morning, the first mail on Monday morning, by others who had their notices mailed out at exactly the same time.

Chief Examiner Yost: If testimony can be introduced here to establish the exact hour of delivery of this notice to the Nelson Brothers office in Chicago, that would be very material. But that has not been proved. Mr. Nelson, as the Examiner recalls, stated he did not know when it reached the office, that it did not reach his desk until 2:30, I believe, Monday afternoon. The Examiner will hold that if the notice was delivered to the office, that would be sufficient; but in the absence of proof, it is seen that the question for the Examiner to determine is somewhat difficult.

Mrs. Willebrandt: There is no proof, in the absence of its having been sent by registered mail, of the exact hour of delivery. It then becomes necessary for the Examiner to weigh reasonable probabilities or circumstantial evidence as against the fact that it did not reach Mr. Nelson's desk, according to his testimony, until the afternoon. But since that is a nice question to weigh and its runs close—it is a marginal question—I believe that it may be helpful to the Examiner to get all of the facts into the record concerning the delivery of this notice.

Chief Examiner Yost: The Examiner is clearly of the opinion that the notice should have been delivered on the first delivery in Chicago Monday morning; but it is possible that it was not. In the absence of proof, how is the Examiner to determine the question?

Mrs. Willebrandt: There is a long line of cases where courts have decided upon reasonable probabilities and invoked that well known rule that the ordinary course, as

well established by public business as the delivery of the mails, will take its usual course. It would be pos-
501 sible to give considerably more proof on that feature in the record that would be helpful to the Examiner.

Mr. Newman: Mrs. Willebrandt, with respect to the date you received the Radio Commission notice that your case was set down for hearing, when did you apply for permission to take these depositions? How many days after the receiving of the notice?

Mrs. Willebrandt: It was very close. We will give you that exactly.

Mr. Newman: The notice of hearing was sent March 25, 1931. The case was set for April 23, 1931. Is that the date this was originally set for?

Mrs. Willebrandt: Yes.

Mr. Newman: Maybe these depositions were not asked for in seasonable time. We know there was some delay in getting them through the Commission.

Mrs. Willebrandt: May I ask to have the notice, with the stamp which Mr. Nelson has testified was attached to it, in the record?

Chief Examiner Yost: It may go into the record.

(An order to take depositions, dated April 17, 1931, was thereupon marked "Docket 1156, Applicant Exhibit No. 29", and is filed with the record in possession of the Commission.)

Mrs. Willebrandt: And may it be noted that the stamp affixed by Mr. Nelson's own office is one of those usual office stamps pointing to the hour between 8 and 9 a. m. on the 20th of this month.

Chief Examiner Yost: Is Mr. Nelson qualified to state when this letter was received at the office?

502 Mr. Boyd: He has already stated it was received in the office and brought to his desk at 2:30.

Chief Examiner Yost: The Examiner understands that Mr. Nelson testified that it reached him at 2:30. Is he qualified to state when it was actually delivered to the office? If so, how did he obtain that knowledge?

Mr. Nelson: I cannot testify as to the exact time delivery was made, only that any mail from Washington,

from the Federal Radio Commission or from Mrs. Willebrandt, is delivered at once.

Chief Examiner Yost: You mean, that is your instruction?

Mr. Nelson: Yes. This letter was mailed on the 18th, which was Saturday, at 3:30 in the afternoon. That may or may not have been delivered on the first mail Monday morning. Furthermore, it would have given us about two hours to get down to Gary.

Chief Examiner Yost: It is very apparent that the time was very much limited.

Mr. Nelson: We should have had at least a day.

Mrs. Willebrandt: The slightest request for a day would have been granted.

Mr. Nelson: It could not have been. The case was to be heard on the 23rd.

Mrs. Willebrandt: It was, however, then known to be a postponed date. We would have joined you in asking for a postponement.

I would like to put Mr. Smith on the stand to testify exactly to this matter.

503 **W. M. Smith** was called as a witness for and on behalf of applicant WJKS and, having been duly sworn, testified as follows:

Direct examination.

By Mrs. Willebrandt:

Q. Did you receive from the Federal Radio Commission an order to take depositions in this case? A. I did not receive the order itself. I received a telephone message from the secretary's office on the 17th to the effect that the order had been signed.

Q. What did you do immediately? A. I immediately instructed the stenographer in the office to prepare for me sufficient copies to go to everybody notified as party respondents in the case set for the 23rd.

Q. Were those copies so prepared? A. They were.

Q. And what did you do with the copies after they were prepared? A. I took them around to the branch post office

on 14th Street; I think it is 708 14th Street, Northwest, and I deposited them in the mail on the 18th around noon.

Chief Examiner Yost: Saturday, the 18th of April?
The Witness: Yes, sir.

504 By Mrs. Willebrandt:

Q. Did you make application to the Radio Commission for the granting of the petition to take depositions in this case? A. I did.

Q. When was that application filed with the Commission? A. It was prepared under date of the 15th. It was delivered personally on the evening of the 15th, and, I believe, it actually reached the Radio Commission at 9 o'clock the 16th.

Q. The Commission granted the petition to take depositions on the 17th and you received your notification that they had granted the request to take the depositions, in the afternoon of the 17th? A. That is correct.

Q. How late in the afternoon? A. I should say, between 3 and 3:30. That is my best recollection.

505 Cross-examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. Did you then take the notice to Gary? Did you go to Gary yourself? A. I did not.

Q. Did you receive the depositions back in the mail? A. No; I received them from the hands of Mr. Johnson who came from Gary.

Q. They were not put in the post office and mailed back as usual? A. No; they were delivered by hand. I do not know what the usual practice is. The order called for delivery not later than 10 o'clock on, I think, the 22nd.

Q. But you received the depositions from Mr. Johnson? A. Yes.

Q. And, in turn, took them to the office of the secretary? A. Delivered them into the hands of Mr. Reynolds, the assistant secretary.

Q. About what time? A. About 10 o'clock.

Mrs. Willebrandt: Before ten?
The Witness: No; I don't know whether it was before—it was either a little before or a little after. It was close

to 10, as I recall, because that was the day the case was called, and before coming in here to answer Ready, with Mrs. Willebrandt, I stopped by the secretary's office with Mr. Atlass.

Mr. Newman: Who knows when the taking of
506 depositions actually began?

The Witness: Mr. Johnson was present there.

Mrs. Willebrandt: The notary's return shows that. The taking of the depositions began at the office of the notary on Monday, April 20, 1931, at 1 o'clock p. m., and adjourned to another room which was more convenient for the notary and the witnesses called to testify.

Thomas J. Johnson, a witness previously called and sworn on behalf of the applicant, was recalled and testified further as follows:

Direct examination.

By Mrs. Willebrandt:

Q. Were you present at the taking of the depositions that have been offered in this case? A. I was.

Q. Where did you meet for the taking of these depositions? A. At Mr. Menczynski's office, and then we adjourned to this other room at eight hundred and something Broadway.

Q. What time did the actual taking of the depositions begin? A. At 2:30 or quarter to 3, and they continued until along about 9:30.

Chief Examiner Yost: The same day?

The Witness: Yes.

507 By Mrs. Willebrandt:

Q. Were you present during the entire taking of the depositions? A. Yes.

Q. Was there any request, informal or otherwise, by telephone or by messenger, for any continuance or interruption of the taking of the depositions to accommodate the respondents in this case? A. There was no request made.

Q. That is, that came to your attention? A. That came to my attention; and during the taking of the depositions there was a 'phone right in the room, and the Commis-

sioner so appointed 'phoned to his office several times and said that if there were any messages to relay them to this room.

Cross-examination on behalf of the Commission.

By Mr Newman:

Q. You say the place of taking the depositions was accessible by telephone? A. Yes.

Q. In other words, was this notary named in the 'phone book? A. His name is in the 'phone book and he is very well known, as he is the vice-president of the Safety Board in Gary.

Q. If some one called the number which appears after his name in the book would that 'phone have rung
508 in the place where the testimony was being taken, in the first room? A. In the first room; yes. His office was not large enough to accommodate the people.

Chief Examiner Yost: The Examiner understands that there is no disagreement as to that phase of the question. They admit they made no attempt. They had no notice, is their claim?

Mr. Boyd: That is right.

The Witness: I might say that I saw the notice that the Commissioner received. He had the notice. I was at his office along about 10 o'clock, and he had that notice. All mail for Gary sent from Washington for Gary comes through Chicago. It has first got to be delivered at the Chicago office, and then comes from Chicago to Gary.

Cross-examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. Did you take any depositions at the place stated in the notice? Did you take any testimony at that place? A. Several of the witnesses were sworn there.

Q. Did you take any testimony there, I said. A. Probably their names, or something.

Q. Did you take any testimony at the point named in the notice? A. There was no actual testimony taken; no, sir.

Mrs. Willebrandt: I may state that if there is the slightest question raised as to that, that it is the right of
509 a person who is named in a commission to take testimony to adjourn, after having called the meeting in the room designated, to a nearby and more convenient room.

Chief Examiner Yost: That is not material, in the Examiner's opinion. It is wholly a question of notice.

Mr. Cook: Were the depositions signed? There are no signatures on these depositions. There is a signature by the notary public, but I did not find, in examining this last night, that there are any signatures to the depositions by the deponents. You see, it is blank (indicating). I do not find the signature of a single deponent in the whole thing; and I have never heard of a deposition that was not signed.

Mr. Newman: At that rate, the Commission will enter an objection to these depositions, Mr. Examiner.

Chief Examiner Yost: The Examiner will hear at this time any further testimony to be offered with reference to the depositions, and will reserve any ruling until later, at which time he will determine what, if any, consideration is to be given to the depositions or whether or not they shall be submitted for such consideration as the Commission desires to give them.

Mrs. Willebrandt: May I enter this motion? Under the rules of the Radio Commission, as well as, of course, the supporting rules of equity that prevail in cases of this kind, the Examiner has the authority to ask for additional testimony; and should the ruling of the Examiner be against the introduction of these depositions, may the same order to take, at a time entirely convenient to the respondents
510 here, of which they notify the Examiner and then notify us by telephone, without any formality, be issued, with the ruling by the Examiner to allow them to be filed in due course and be entered as part of the record?

Chief Examiner Yost: It is entirely agreeable to the Examiner that any depositions taken by authority hereafter granted by the Commission be admitted at a later date.

Mrs. Willebrandt: Then the Examiner holds that the Examiner has not the authority to ask for the taking of these depositions?

Chief Examiner Yost: The Examiner was not passing upon that question necessarily, presuming that the applicant would again request authority for the taking of such depositions, which the Examiner is perfectly willing to admit at a later date and have go into the files of the case when they are taken, properly certified, after notice to other parties.

Mrs. Willebrandt: The point I am pursuing is this, and I will ask for one further statement from the Examiner so that the record will be clear and there will be no misunderstanding on our part.

I believe these depositions may be properly received by the Examiner under the proffer here made. If the Examiner rules otherwise—he has not yet announced his ruling—I am asking to reserve the right, then, to have this motion which I here make contingent upon that ruling entertained and acted upon by the Examiner to take the same depositions at a time far enough in the future so that there can be no question about notice.

511 Chief Examiner Yost: The Examiner would be pleased to have the uncertainty as to the admissibility of the depositions removed, and therefore would request that the attorney for the applicant seek authority from the Federal Radio Commission to take the depositions at some later date.

Mrs. Willebrandt: And they will be admitted?

Chief Examiner Yost: And they will be admitted.

Mrs. Willebrandt: As a part of this record?

Chief Examiner Yost: As a part of this record.

Mr. Newman: Provided the Commission grants the authority.

Mrs. Willebrandt: Then the Examiner rules that he has not the authority to order the taking at this time?

Chief Examiner Yost: The Examiner doubts somewhat his authority, and inasmuch as it does not seem to be necessary for him to act, since the Commission is available for such matters, he prefers that request be made of the Commission, as has been the usual custom.

Mrs. Willebrandt: Will you indicate a date satisfactory to you, Mr. Boyd? If the depositions are not in evidence we may change the order of the names and substitute names for those which were improperly included. In two instances the parties did not realize the formality of the pro-

ceedings and sent their office assistants. I will indicate those names to you.

Mr. Clifford: You indicated them to us yesterday, I believe.

Mr. Cook: Do I understand that you have withdrawn the proffer?

512 Mrs. Willebrandt: No, I have not. I am asking for a proper date. I am going to safeguard my record by making application, contingent upon the Examiner ruling it out, after picking out a date that satisfies you.

Mr. Cook: Mr. Boyd is not certain of his calendar. He has got to look at his calendar. We could agree inside of 24 hours on a date, I suppose?

Mr. Boyd: I think so.

Mr. Cook: Furthermore, there may be an exchange of notices, because it is very possible that respondent will wish to take depositions too. We may agree upon the same Examiner and give notice. It may take a couple of days to ascertain the form of that notice. If this is to be a battle of depositions, there must be volleys from both sides. We can agree on a date, though.

I might call the attention of the Examiner to the rule of the Commission which is that in exceptional cases depositions may be taken. Evidently in the drafting of the rules the Commission anticipated that they did not want to do too much trying of cases by deposition; and I do not know whether the applicant has shown special circumstances which warrant the taking of depositions in this case. That is for the Commission to decide.

Mrs. Willebrandt: The Commission has decided that.

Mr. Cook: They have issued an order for the taking of these depositions, but there has been a hearing, and there is a question in my mind as to whether at this stage the taking of depositions is within the view of the Commission as to how they want these cases tried. The Exami-

513 ner is supposed to make findings of fact and findings of law. It is undesirable to try cases by deposition when it comes to facts. The Examiner ought to see the witnesses and judge of them; and in the taking of these particular depositions the chief officer of the corporation applicant conducted the examination himself, not in camera, but before the notary, on what appeared to be a set of stated questions, prepared for individual witnesses.

Mrs. Willebrandt: Now, for the sake of the record, may I state in reply to Mr. Cook's first question of counsel for the applicant that we believe that the depositions are properly receivable. We have offered them. The Examiner has postponed ruling on them. I have suggested that if the Examiner rules them out, we will ask for their taking at a time entirely satisfactory to both sides, and that time is left blank in this record to be supplied by the respondents if these depositions are ruled out.

Mr. Cook: And we have the opportunity to ask for depositions.

Mrs. Willebrandt: You may make your motion when your case comes on, sir, as I have made mine.

Frank Morrow was called as a witness for and on behalf of applicant WJKS and, being first duly sworn, testified as follows:

514 Direct examination.

By Mrs. Willebrandt:

Q. State your name and occupation. A. Frank Morrow, employed at Station WJKS.

Q. How long have you been continuously employed at WJKS? A. For the major part of four years.

Q. You have had general charge of the programs? A. I have had charge of them in so far as their construction, along with the accompanist or musical director and Mr. Johnson.

Q. Do you have charge of the log there? A. Yes; I have; that is, that part of the log which concerns my studio.

Q. Has WJKS kept a log? A. We have, since the Commission's ruling, ordered a log kept, and we had prior to that for our own record.

Q. Have you in the last few days made an examination of the log and taken off a copy of some programs from the log? A. I have.

Q. Over what period of time have you picked these programs out? A. It was done in rather a hurry——

Q. No; I mean you picked them from what range
515 of time in the log? A. Over a period of approximately a year.

Q. And you picked them at random? A. At random; yes.

Q. And you have taken these transcripts from the log? A. Yes.

Q. Are these transcripts from the log that you have personally prepared? You typed those yourself, did you not? A. These are copies taken from the log and from our old sheets which were taken prior to the keeping of the log.

Q. These are exact copies of the log? A. Yes.

Q. We are referring, here, to Monday, March 16, and Friday, January 16, 1931——

Mr. Cook: If the Examiner please, we do not think the copies are admissible. The log of a station is like a shop book in a mercantile establishment, and a witness would not be tolerated to come before you with a transcript of sheets from a ledger or day book that he had made himself and to testify that those were transactions of the shop.

The log of one of these stations is an important thing. It cannot be tremendously voluminous. If they wish to prove by their own books what has occurred, they should bring the books.

Mrs. Willebrandt: We have the logs here, but manifestly the record should not be burdened with these voluminous books.

Mr. Cook: But he can testify from the original entries, and only put in such entries as counsel deems necessary. The original book is the source from which he should testify.

516 Mrs. Willebrandt: Mr. Examiner, in response to Mr. Cook's suggestion, we will be here for days if a transcript is put in of the pages from the log of simple programs and an attempt is made to go back and read them into the record.

Mr. Cook: You have offered, as I understand it, transcripts taken off by the witness from the original books. We suggest that you show the original book, read the pages which he has transcribed, and then use the transcription to assist his testimony. But the original books we suggest should be shown.

Chief Examiner Yost: It has been the practice to admit copies of programs where the witness is able to testify of his own knowledge that they are true and correct copies taken from the original; and when these are offered in

duplicate, properly identified, they have been admitted in other hearings. If it is established that these are true and correct copies, then the Examiner thinks that they are admissible. But they must be properly identified, and the witness is subject to cross examination.

Mr. Cook: May we look at the original logs?

Mrs. Willebrandt: I am not going to turn the logs over.

Chief Examiner Yost: The log is not in the possession of the Examiner.

Mr. Cook: I would like to know why we cannot look at the log. It is a book kept by the applicant under a ruling of the Commission. It is in court, and we would like to check the witness in cross examination from his transcript, by looking at a few, at least, of the original entries.

Mrs. Willebrandt: If it bothers Mr. Cook for me
517 to use the word "log", I will introduce these in another way.

Mr. Cook: There has been testimony here that the log was kept. We would like to see the log itself for a cursory examination. It is a public record maintained under a public law in connection with a licensed station. I think we are entitled to look at it.

Chief Examiner Yost: The log has not been offered. It is not under the control of the Examiner.

Mr. Newman: Mr. Examiner, it seems to me that since we have a general order to the effect that Stations must keep logs, it is safe to assume that the general order was enacted for the purpose of having logs at the disposal of the Commission at just such hearings as this.

Chief Examiner Yost: It may be at the disposal of the Commission, but under the circumstances in this case the Examiner does not feel that it is under his control.

Mr. Newman: I suppose we can subpœna it. We have not done that. However, the applicant's attorney admits that the logs are in court.

Mr. Cook: We would like to know what the objection is to showing this public record maintained by this licensed station. What is the objection? Is there something secret about this book?

Mrs. Willebrandt: The chief objection, Mr. Cook, is that we would like to get along and present proof that the applicant believes is admissible as the case develops. If you want the logs——

Mr. Cook: We would like to look at them, frankly.

Mrs. Willebrandt: We will have a little private
518 session and let you examine them.

Mr. Newman: Is the exhibit offered on behalf of the applicant programs which have been picked and chosen?

Mrs. Willebrandt: I am just laying a foundation for the sheets. The foundation is not laid yet.

Mr. Newman (continuing): And omitting some of the poorer ones? I think if we are going to have sample programs here, Mr. Examiner, we ought to have everything over a reasonable period of time.

Chief Examiner Yost: The witness may be interrogated as to the matter.

By Mrs. Willebrandt:

Q. You were in charge of programs on January 16, 1931? A. I was.

Q. I will ask you to look carefully at that sheet (indicating) and I ask you whether you know of your own knowledge whether that is a statement of the actual program broadcast over WJKS on that date. A. That is a statement of the 16th of January.

Mrs. Willebrandt: I offer it in evidence.

Mr. Newman: Is that the full program for that day?

The Witness: Yes; every period.

Chief Examiner Yost: This copy is true and correct?

The Witness: Absolutely.

Chief Examiner Yost: It may be admitted.

(A copy of program of Station WJKS for January 16, 1931, was received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 30". An additional copy is to be furnished by the applicant.)

519 By Mrs. Willebrandt:

Q. I will ask you to look at this sheet of paper (indicating), and I ask you what it is. A. This sheet of paper is a correct copy transcribed by me from the log of WJKS, as stated, for the date of March 16, 1931.

Q. Look carefully at the entries made thereon and state whether you know that that actual program was broadcast

over your station on that date. A. That program was broadcast.

Q. And this is a true and correct copy of the actual program broadcast on that date? A. Yes.

Mrs. Willebrandt: We offer it in evidence. It is for March 16, 1931.

Chief Examiner Yost: It may be admitted.

(Two copies of program of WJKS for March 16, 1931, were received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 31", and are filed with the two copies of transcript in possession of the Commission.)

By Mrs. Willebrandt:

Q. I will ask you to look at these three sheets of paper, bearing dates of Monday, December 22, Tuesday, December 23, Wednesday, December 24, Thursday, December 25, Friday, December 26, Saturday, December 27, and Sunday, December 28, and ask you whether those entries represent actual programs broadcast over your station on those dates. A. Those entries do.

Q. And at those hours? A. Yes.

520 Q. Is this a true and correct copy of your programs on those dates? A. This is a true and correct copy of the programs of WJKS on the dates mentioned, with a word of explanation which I would like to make, if it is permissible. We have here the arrival and departure of vessels included in the program of Monday, December 22.

Mr. Clifford: I would like to enter an objection here. They are presenting something here that is said to be a copy, either a copy of the log or a copy of their programs. I think the record should be cleared up as to just what this is. Is this the actual program which is broadcast, or is it a copy of the log showing a program?

Mrs. Willebrandt: I have asked him that question in each instance and he said it was the actual program as copied from the log. To his knowledge it is an actual program.

Mr. Cook: You mean, that was what was sent out?

The Witness: This was broadcast.

By Mrs. Willebrandt:

Q. Let us go back, now, to every one of these pages. Is this, referring to the one of January 16, 1931, the actual program broadcast from your station at those hours on that day? A. Yes.

Q. And this paper is a true and correct copy of your program on that day? A. It is.

Q. Does your answer hold good for all the other
521 papers that we have so far put in? A. It does.

Q. Have I asked you that before? A. You have.

Q. This paper consisting of three sheets which we have heretofore referred to and the dates of which I have already read into the record, running from Monday, December 22, to and including Sunday, December 28, 1930—does or does not that represent actual programs broadcast on the dates referred to and at the hours and minutes referred to? A. It does represent the program broadcast.

Q. Is this a true and correct copy of your programs as broadcast on those dates? A. Yes.

Q. Are there any items here that form an exception to your last answer just given? A. There is one item.

Q. What is that? A. At 12:45 p. m. on the 22nd, and, I believe, through various days on the following programs, there is a notation, "Arrival and departure of vessels." It is self-evident that lake traffic ceased before that date. However, the programs of the station were made up—that is, future periods were placed upon the program board and were copied verbatim in the day's log because they were presented at that time.

Q. What actually was broadcast at 12:45 on Monday, December 22, and at those hours thereafter in these days that you are testifying to now? A. A statement of
522 tonnage received and discharged from the Gary mills of the Illinois Steel Company at Gary, in ore, limestone and coal, taking the place of the arrival and departure of vessels with their tonnage which is broadcast in the summer time.

Mrs. Willebrandt: We offer this in evidence.

Chief Examiner Yost: It may be admitted.

Mr. Cook: Just a moment. We would like to make a motion to the Examiner to have a subpœna issued for the actual log of the station. I understand that the Commis-

sion is in session, and we can secure it while the parties are still in court, serve it upon the head of the corporation and thus secure the books which we would like to look at for the purpose of the case.

Chief Examiner Yost: The Examiner suggests that the application be made to the Commission for such subpœna.

Mr. Cook: Cannot the Examiner transmit the 'application?

Mr. Newman: You have to go to the secretary with the application.

Chief Examiner Yost: The Examiners have never made a practice of issuing any requests for subpœnas while hearings are being held in Washington. It is a matter we leave to the Commission and the secretary.

Mr. Cook: The further procedure, then, is to apply to the secretary?

Chief Examiner Yost: Yes.

(Two copies of programs of Station WJKS for December 22, December 23, December 24, December 25, December 26, December 27, and December 28 were received in evidence and identified by being marked "Docket No. 1156, Applicant's Exhibit No. 32", and are filed with the two
523 copies of transcript in possession of the Commission.)

Mr. Clifford: I want to call the Examiner's attention to Section 12 of the practice and procedure before the Radio Commission, entitled "Witnesses and Subpœnas", which states that "subpœnas may be issued by the Commission or any member thereof or by an Examiner appointed by the Commission to compel the attendance of any witness at any hearing or at the taking of any deposition, or to compel the production of any document."

Mr. Newman: I think it is safe to say that the Examiners, up to date, by the practice and custom, have not been appointed by the Commission for that purpose.

Chief Examiner Yost: When hearings are being conducted outside of Washington, then the Examiner may exercise that authority, but when in Washington it has never been the practice of the Examiners, and this Examiner prefers that the request be lodged with the Commission.

Mr. Clifford: I misunderstood the Examiner's statement. He does not say that he does not have the power, but he prefers that the Commission issue the subpœna than for him to grant it?

Chief Examiner Yost: Yes.

By Mrs. Willebrandt:

Q. I show you a sheet marked "Program for WJKS, Gary, Indiana, for week of September 14, 1930", and ask you whether the entries on these three sheets of paper represent actual programs actually broadcast on the dates and hours that appear on this paper. A. While this
524 transcription is not my own of these particular programs, the programs as listed here were broadcast on the dates stated.

Q. You know that the programs were broadcast on those dates? A. I do.

Q. You did not do the typing of this paper? A. No; I did not.

Q. Examine the entries carefully and see whether the actual programs at the hour and date mentioned were broadcast over your station.

Mr. Cook: If the Examiner please, I do not wish to be captious about this, but the witness Morrow was qualified to state that he himself had copied certain entries from the log accurately and was able to certify that they were true copies, and the copies were offered and marked. Now it appears that he has a paper in his hand that he did not make himself, and he undertakes to testify from his memory as of the present day regarding what occurred on September 14, 1930, and is prepared to state that everything happened that is recorded. It is not good proof, because he is not entering the record, but is undertaking to testify that everything happened that is said to have occurred on the transcript made by somebody else from a page of the log; and I do not think it is good proof.

Chief Examiner Yost: If the witness has personal knowledge that the items alleged to have been broadcast were actually broadcast, the Examiner is of the opinion that that is satisfactory.

525 By Mrs. Willebrandt:

Q. This program was under your general authority? A. It was.

Q. Were the copies from the program record of that date that we have here before us made under your general direction? A. They were.

Q. You did not actually type this sheet? A. I did not.

Mrs. Willebrandt: We offer them in evidence.

Chief Examiner Yost: They may be admitted.

Mr. Cook: I object to the admission of the sheet, because we have not seen the person who made it as a transcript from the log of this station.

Chief Examiner Yost: The witness has testified that he knows of his own personal knowledge that that is a true and correct copy of the broadcast made on the date set forth in the exhibit.

Mr. Cook: Who copied that paper?

The Witness: This particular copy I cannot say. There were a number of girls working in the office.

Mr. Cook: You do not know who made the transcript?

The Witness: No, sir.

Mr. Cook: Did you proof-read it against the original, yourself?

The Witness: I have proofread these programs against the records.

Mr. Cook: What records?

The Witness: Which we maintain in the studio.

526 We kept a record, as I stated when I first came on the stand, prior to the ruling by the Commission regarding a station log. We maintained for our own information program sheets which were a record of the programs broadcast each day. If you will note, the programs in question are in 1930. If I remember correctly, the Commission's ruling was approximately the first of this year regarding the keeping of a station log.

Mr. Cook: Did you proof-read this paper marked "Exhibit 33" against the original memorandum, or whatever it was?

The Witness: Against our program sheets; yes, sir.

Mr. Cook: The things that were to be announced?

The Witness: No, sir. These are the program records as they are taken of programs which were broadcast over the station.

Mr. Cook: Actually put out?

The Witness: Yes, sir.

Mr. Cook: And you proof-read this thing against that program?

The Witness: Yes.

Mr. Cook: And you proof-read this one (indicating)?

The Witness: Yes.

(A copy of programs of WJKS for the week of September 14, 1930, was received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 33"; an additional copy of which is to be furnished by the applicant.)

By Mrs. Willebrandt:

Q. I show you a paper marked "For Friday, July 4, 1930", and ask you whether the entries thereon rep-
527 resent the actual programs broadcast on that day and at the hours recorded. A. These entries represent the program broadcast by the station on that date.

Q. Is this a true and correct copy of your record of programs broadcast on that date? A. This is a true and correct copy.

Q. You made it yourself? A. Yes; it was prepared by myself.

Mrs. Willebrandt: I offer it in evidence.

Chief Examiner Yost: It may be admitted.

(A paper marked "For Friday, July 4, 1930", was received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 34.")

By Mrs. Willebrandt:

Q. I show you a sheet marked "For Thursday, July 3, 1930", and ask you whether the entries thereon represent the actual program broadcast over WJKS on that date and at the hours indicated. A. The entries on this sheet marked "For Thursday, July 3, 1930" are a transcript of

the record of programs actually broadcast over the station on the date mentioned.

Q. You made this transcript yourself? A. I did.

Q. From your station records? A. I did.

Mrs. Willebrandt: I offer it in evidence.

Chief Examiner Yost: It may be admitted.

528 (Two copies of program sheet headed "For Thursday, July 3, 1930", were received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 35", and are filed with the two copies of transcript in possession of the Commission.)

By Mrs. Willebrandt:

Q. Let me ask you this. Are the records that you are referring to in all instances relative to the copies of the programs that you have testified about, which copies have been placed in evidence in the last few moments in this hearing, made from your original station records of programs to be broadcast or of programs that actually have been broadcast? A. These copies which have been presented are of programs which have been broadcast. They are taken from our original station records.

Q. In any instance do they represent advertised or advance copies of what is going to be done? A. They do not.

Q. In all instances do they or do they not represent what actually was done under your direction at the station? A. They do.

Q. I show you a paper headed "Wednesday, February 19, 1930", and ask you whether the entries on this paper represent the actual program broadcast from WJKS at the hours specified. A. This is made from our original record of the program actually broadcast from WJKS on the 19th of February, 1930. The transcript was prepared by myself.

Mrs. Willebrandt: We offer it in evidence.

Chief Examiner Yost: It may be admitted.

529 (Two copies of program sheet headed "Wednesday, February 19, 1930", were received in evidence and identified by being marked "Docket No. 1156, Applicant's Exhibit No. 36", and are filed with the two copies of transcript in possession of the Commission.)

By Mrs. Willebrandt:

Q. I show you a paper marked "Sunday, February 16, 1930," and ask you what that represents. A. The sheet in question, marked "Sunday, February, 16, 1930", is a transcript prepared by myself from the original station records of the program actually broadcast on that date.

Mrs. Willebrandt: We offer this in evidence.
Chief Examiner Yost: It may be admitted.

(Two copies of program sheet headed "Sunday, February 16, 1930", were received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 37", and are filed with the two copies of transcript in the possession of the Commission.)

By Mrs. Willebrandt:

Q. I show you again Applicant's Exhibit 37, which is marked "Sunday, February 16, 1930," and ask you to examine this sheet carefully and state whether it is a fair average Sunday religious program. A. It is. Might I ask a question? Your question was, Does this not represent a fair average of the programs? That is, with regard to the amount of certain types of program which is presented on Sunday?

Q. Yes; a fair average of the allotment of Sunday
530 time. A. That is, apportioned to religious types of program, yes, it is.

Q. I will ask you to run over that program. It is short, and name the items. A. At 8 o'clock in the morning, church services, St. Mary's of The Lake. That is Father Guerre.

At 9 o'clock, sacred music, which was a recorded program.

Q. You mean, records were used? A. Yes, using records.

10:45, the Central Baptist Church services, Rev. Ayer, Pastor.

11:45 we signed off for station WGES in Chicago.

At 1 o'clock p. m. we returned to the air with the Bread of Life program from the Central Baptist Church, Rev. Ayer, Pastor.

2 o'clock p. m., Christian Church of Tolleston, Rev. Fleming.

At 2:30 p. m., Fourth Presbyterian Church of East Gary, Rev. Alamsha.

At 3 o'clock, Salvation Army services, in charge of Ensign Gates.

At 3:30, West Gary Presbyterian Church,——

Q. Who is the pastor there? A. Rev. Alamsha. He is also pastor of the Fourth Presbyterian Church of East Gary mentioned heretofore.

Q. You had to sign off at 4 until 7:30? A. Yes. At 7:30 we returned to the air with the program of the City Church, Epworth League of the Methodist Church.

531 At 8 o'clock, First Presbyterian Church, Rev. Bachmeyer.

At 8:45 p. m., sacred organ recital from the Presbyterian Church.

9 p. m., studio program, continuing until 9:30, when we signed off.

10:45, studio program, dance music.

11 o'clock, Elks' Memorial Hour.

At 12 o'clock we signed off for the night in favor of WGES.

Q. I will ask you whether you broadcast more than one denomination on Sundays. A. We do.

Q. Do you broadcast all denominations in Gary? A. We do not; it is impossible.

Q. Which ones do you leave out? A. We broadcast as many as we have time for on the station. Due to lack of time we are unable to give them all time.

Q. Do you discriminate between denominations or have any particular hours that you allot to certain denominations? A. No; we do not.

Q. How do you allot the time you do have on Sundays? A. The Baptist Church has a regular broadcast service schedule. The Presbyterian Church is also scheduled in the winter months. In summertime they do not have evening services. We have a Catholic Chapel Hour which is a regularly scheduled program. Then in the afternoon on Sunday between the hours approximately of 2 o'clock and 4 o'clock the time has been allotted—has been of-

532 fered, rather, to any religious denomination or organization regardless of their creed so long as they are not atheistic or are not disbelievers in God. This time is open to any of them upon proper application to station authorities for an amount of time, giving us due notice.

Q. You would take them in order? A. Yes, in the order in which they come up.

Q. I will ask you to glance through these programs which have just been introduced as exhibits and point out the Learn to speak English program. Do you find that there? A. I find it at 7 o'clock.

Q. Are they on practically every day? A. They are.

Q. How long have you had that Learn to speak English feature peculiarly for the service of Gary? A. It has been on the station—that particular program has been on the station for a year or more. The exact date I do not have in mind.

Q. Will you please explain to the Examiner just how that program is handled? A. We have a peculiar situation in Gary. There are so many different nationalities, so many different foreign children in the schools who find it difficult to talk English, due to the fact that when they go home from school they are forced to revert to a foreign language, that it was therefore decided that it might be possible over the air to present an elementary course in the rudiments of English. That is done by utilizing a text book which is used in the actual schools for be-
533 ginners in English.

Q. The Gary public schools? A. Yes.

Q. So that it is the same text book that the children use in school and which they can bring home at night? A. Yes, and they of course take it home with them, to do home work, and at night they utilize it for instruction of their parents when this feature comes on the air. Teachers in the schools have told their children to tell their parents that it is on the radio at a certain time, and they tune in, and the children come back and report to their teachers how mother and dad are getting along, rather mother and dad asking how they are getting along in school.

Q. The broadcast is conducted in English or in a foreign language? A. It is conducted in English.

Q. At the other end of the broadcast, at the receiving set, with most of those who are taking the instruction, do they or do they not, if you know, speak enough English so that they can understand the instructions?

Mr. Boyd: I suggest that he answer that categorically, whether he knows or not.

A. I do, from an investigation for that purpose, in order that we might find whether or not this program was worth while continuing. I made a personal investigation and through various centers caused personal investigations to be made, and we have found, and it is on record at those centers, that while the majority of foreigners whom we reach on that program can neither read nor write
534 the English language, yet most of them understand a few simple spoken words of English; and it is the simple words that are used in this program, building up their vocabulary step by step, starting with the A, B, C's. It is literally speaking starting with the phonetics of English.

By Mrs. Willebrandt:

Q. Does Gary have its own peculiar text book called "Learn to speak English"? A. No; this text book that is used is an elementary book that is available and it is announced during this program that the book is available either through the school system or through the publishing company, and the children are told in their class rooms that they can get the book for their parents if the parents desire them.

Q. Will you state whether there is a demand from Gary and throughout the Calumet region for that program? A. There is a very great demand, because the people who are learning to speak English are proud of it.

By Mrs. Willebrandt:

Q. On what do you base your statement that there is a demand for this program? You stated there was. A. Miss Hayes, who presents the feature over the station,
535 is a teacher of English in the Beveridge School in Gary, teaching the English language in the 4th, 5th and 6th grades.

Q. If you had more time would you enlarge this type of program?

536 By Mrs. Willebrandt:

Q. Turn to these programs and see the Americanization programs. A. Here (indicating) is a program on July 4, 1930, the War Mothers program, an Americanization pro-

gram. I find also on that date programs entitled "Germans in American History", "Frenchmen in American History", and the "Slavish People in American History." Also the Spanish and Mexican peoples' hand in our history.

I also have at hand a copy of July 3, 1930, when, at 7:30 p. m., there was a children's program by Major Keppler.

Q. In what way was that an Americanization program? A. It was presenting stories of America, her ideals, her structure, how that is perpetuated in a form in which children might understand it. And essentially the foreigners are children.

Q. What are your Americanization programs and how many of them do you have a week? A. We have Americanization programs which are prepared by a group of Americans, such as civic organizations, war mothers, the American Legion, the American Red Cross and various groups of that type, which are special broadcasts. Then we have foreign programs which present groups of nationalities.

Q. Do you know the origin and establishment of
537 this foreign language special broadcast in Gary?
A. I do.

Q. Please state it. A. Four years ago when this station first went on the air Mr. Johnson discussed with myself and others who were connected with the station at the time how we might best serve the foreign population of the city, in order to carry out his policy of making it a community station. We decided that we would go to the heads of various organizations, such as churches——

Q. State whether you did do that, not what you decided. A. We did go to those organizations and asked them to refer us to outstanding naturalized American citizens who were also outstanding representatives of their own national groups in Gary or in that region. That was done. After these men were selected they were called together in a banquet——

Q. You mean, the leaders? A. Yes; each outstanding leader of each national group. They were called together in a banquet at which it was explained.

Q. Who gave that banquet? A. Mr. Johnson.

Q. How many of them were there? I mean, how many of the representatives of the foreign nationalities? A. There were twelve representatives at the meeting. There they were told of the advantages of this plan to present a national

program for each nationality; that is, presenting talented people from each nationality. Also they were told
538 what advantages it would bring to American people to be enabled to hear this music and thought as it is expressed by these foreign people. They were told that it would increase national pride and civic pride as well as their own pride.

Q. What was their responsibility? A. They were charged with spreading the word among their people that this type of program was to be placed on WJKS.

Q. Did they have any financial or other responsibility to the station? A. There was none.

Q. Were they selected in any manner because of any advertising that they gave the station? A. Not a bit.

Q. Did they have any percentages or commissions or anything of that sort that brought them into any financial or managerial relationship with the station? A. None.

Q. You say their names were selected by the civic leaders and social workers of Gary? A. Yes; leaders of civic clubs, such as the Lions, Rotary and Kiwanis.

Q. How much time was promised to each of them if they worked up their national programs? A. They were told that when they had prepared their program to the point that it would be a sustaining feature, where it would sustain itself and not die out after one or two broadcasts, they were to come to the station and present their pro-
539 gram in copy form and they would then be assigned a period of 30 minutes for their particular national program. They were also told that if their program warranted, and the time was available, their period would be increased at a future time.

Q. Who was the first national group that responded? A. The Polish group.

Q. Who is the leader of the Polish group? A. Mr. Menczynski, a member of the Safety Board, Commissioner of Public Safety.

Q. State what type of program is given. A. It is a musical program with vocal and instrumental selections expressing the particular type of music of the country which is appearing at the time.

Q. Is Mr. Menczynski or his wife in charge of that program? A. Mrs. Menczynski is in direct charge, that is, of presenting the program. Mr. Menczynski, however, is the

director. Mr. Menczynski, by the way, is the announcer in Polish on the Polish program.

Q. Describe how much Polish or foreign language is spoken over the radio when you give this program. A. Merely the announcement of the period, the names of the songs and the closing announcement of the program.

Q. Are there any exceptions to that on special holidays or patriotic days? A. There are at times when we
540 have American holidays, such as the 4th of July, or, for instance, Gary is to have its Silver Jubilee celebration, and that has been spoken of during the Polish program, as on all other foreign programs. People are told of the part which they have played in building Gary, the part which they are to have in the celebration.

Q. Is this program, after being spoken in Polish, translated into English? A. It is; each announcement is made exactly as it has been made in Polish.

Q. Generally speaking, it consists of national music? A. Yes.

Q. Are Mr. and Mrs. Menczynski qualified to handle that program? A. They are; exceptionally so. Mrs. Menczynski for a time was a very talented figure in Polish opera.

Q. The Mexican group: who is in charge of that? A. Senor Rimas, a social worker among the Mexican people in Gary.

Q. What type of program do they give? A. They present the laboring people, composed largely of the Mexican group in the city of Gary. When they received word of the program, they grabbed their guitars and came running, you might say. We had more Mexicans than we could use on the program. Now the program consists mostly of vocal and instrumental solos with now and then duets by both male and female voices. We found very talented
541 vocalists, especially among the male portion of the program.

Q. How about the German program? Who is in charge of that? A. A young doctor whose name has escaped me for the moment. He is practicing medicine but is in love with music and takes that way of expressing himself in music through organizing among the German people of Gary and the surrounding territory a musical club which

appears on these programs in behalf of the German people, and presenting German national music; as is true of the other nationalities on their periods.

Q. The Hungarian group: who is in charge of that? A. Mrs. Katherine Pastor.

Q. What type of programs do they broadcast? A. Typical Hungarian music, both vocal and instrumental. The Vagabond Gypsies is the title of the program. They are Magyars, the ancient Hungarian race, and play essentially Hungarian instruments. This program is appreciated.

Q. Is the program popular with more than Hungarians? A. It is.

Q. How about the Italian program? Who is in charge of that? A. The Italian program is under the direction of Louis Vacirca, a leader among the Italians, a barber
542 by trade. In fact, all of these foreigners are working people. They are not professional. There is not a professional among them.

Q. Is there a single one appearing in these national foreign broadcast groups that you have described who is other than a laboring or working man? A. No.

Q. How about the Irish and the Scotch? A. Those are prepared and presented by Scotch and Irish people of Gary and the surrounding territory.

Q. What type of programs? A. Vocal and instrumental selections.

Q. Are they ordinary music, or are they held to their peculiar national music and airs? A. It has been the practice to present them as more of a travelogue, with music and story concerning certain portions of the country represented.

Q. How about the Croatians and Czechs and Slavonians and Lithuanians? A. Those are what we term the Slavish people, and they appear on alternating half hours on Sunday afternoon. We cannot find room for them otherwise. They are noted choir singers, singing without music. That is their specialty, and they vie with one another on their Sundays as to the quality of each program.

Q. Do you know whether this foreign language broadcast as you have described it is desired by the people in
543 the Calumet region? A. Yes, I know it is.

By Mr. Boyd:

Q. Did you talk to those people that want it? A. I did.

Q. Do you talk to them in these various languages? A. I do not.

Q. How do you know, then? A. We have interpreters.

Q. You have interpreters that go with you to talk to those people and you hear the questions put and the answers made? A. May I explain?

Q. Surely. A. On these programs we have telephone operators who take telephone requests from the foreign people who call.

Q. Let me ask you a question in connection with that. Do these telephone operators speak the language of the foreigners? A. They do. That was arranged by asking each group to provide a telephone operator of their nationality who also spoke English, at the time the group first went on the air; and as these programs are presented, in order to check on the foreign announcer, we have a court in-
544 terpreter who sits by my side and interprets everything that is said.

The telephone calls and replies or responses became so great that we have been forced to discontinue any telephone request programs at all because the telephone company refused to have their board tied up.

Q. Unless you paid for the line. You mean by that, that unless you provided additional trunks. They will take all the calls you put into it if you will pay for the lines. A. Yes; but what I mean is, that their trunks are all tied up in the office so that they could not furnish service.

Q. The trunks provided for the reception of calls are not capable of receiving the calls; is that what you mean? A. That is what I mean.

Q. Unless you provide additional facilities, they will not accept your calls? A. Yes. So we have been forced to discontinue telephone request programs at all; but various leaders of these groups and various American leaders have appeared at the station, both to me personally and to groups on the station, and have appeared in public making the statement that these programs were working wonders among their people.

By Mrs. Willebrandt:

Q. How many hours a week do you give to this type of broadcasting? A. Those programs from 8 to 14 hours a week. They vary in the amount of time given.

Q. The demand is such, as you have just described it, that you could and would give more time to this type of program if you had the time to give? A. I would.

545 Q. Is there any peculiar gearing or adaptation of your safety program for the special needs of Gary?

By Mrs. Willebrandt:

Q. Do you have a safety program? A. We have. Every Thursday night.

Q. Do you give it an advantageous hour, hours that are known, or otherwise? A. They are known, and it is an advantageous hour. It is given from 8:15 to 8:30. I might add there that it is given from 8:15 to 8:30 with the exception that on special occasions it is changed 15 minutes, perhaps, one way or the other.

Q. State what that safety program is at that time. A. The program is under the direction of Mr. Davies, who is division safety inspector of the Illinois Steel Company. He presents a program essentially to the workmen,

546 to the people in the home. The program opens with a musical selection by one group or another of workmen who are actually employed in the mills at Gary. This is followed by stories about safety. The stories are not confined to the plant alone, but to the home and the street and all the other various adaptations of safety. It is followed by the reading of a poem, perhaps, and then a musical selection.

Q. Is this geared to actual events? A. Happenings in the mills from week to week; the application of new safety guards to various types of machinery and the varying conditions in the mills and on the street, such as spring with its increase in motor traffic; warning the children to have a care in crossing streets; household accidents, and things of that kind are also watched carefully.

Q. Do you have a program known as the William P. Gleason Hour? A. We have.

Q. Will you please state why it is so named and what it is and when it began? A. The program began almost

four years ago. The exact date of its starting I do not remember, now. Mr. Gleason is the general superintendent of the Illinois Steel Company at Gary. Gary is essentially a steel town. Mr. Gleason is very much interested in every angle of the city and its welfare. When we were starting the station and opening the station Mr. Gleason was very friendly and helped a great deal. In a desire to show appreciation for his service and to commemorate his assistance Mr. Johnson set aside a period of time on
547 Saturday afternoon to be known as the William P. Gleason children's hour.

Q. How long a time is it? A. It varies in length from an hour and a half to two hours or two hours and a half.

Q. Will you state who first started it off? A. Dell Bolling Lee. At that time, music teacher and auditorium instructor at Jefferson School in Gary.

Q. How many children, on an average, did you have when Mrs. Lee or Miss Lee was in charge of it? A. I should judge, 18 or 20 a Saturday.

Q. Then who took charge of it? A. It was then given to Mrs. Catherine Thomas Jones, Principal of Jefferson School.

Q. What was the number of children that broadcast on an average during the time she had charge of it? A. It ran from 35 to 40 or 50. An average program was about 40.

Q. Then who took charge of it next? A. Then Mrs. Florence Keller was placed in charge.

Q. And the number of children who broadcast on this Saturday afternon hour grew to how many under her régime? A. Approximately the same growth, around 50 or 60, depending on weather conditions.

Q. Who then took charge of it? A. Then it was decided to carry the program into the regular studio routine.
548 Before, it had been placed in charge of these teachers, and Miss Murphy was a member of the staff in charge of music work, and she was chosen to take charge of the William P. Gleason children's hour. Under her direction the program continued until a short time ago, when Miss Murphy left the station, to a growth that was phenomenal. We had an average Saturday attendance of 150 to 200, and at one particular time she had, I remember, 600 school children.

Q. How are these children sent in or selected for their broadcasts? A. Primarily the teachers of the various schools were called and they were told what part each of these children should have in broadcasting on Saturdays. Then they set it as a goal for the children to reach in their studies during the week. If they reached a certain point——

549 By Mrs. Willebrandt:

Q. What your plan of selecting the children was, if any, to broadcast over your station. A. That was the first way we took to select the children to broadcast, through the teachers of the schools. Then we visited with the mothers in the homes, and it was taken from that to various musical institutions, so that there are five different sources at the present time from which children are coming to this children's program.

Q. What are those five sources? A. From the public schools, the parochial schools, from music academies, from the homes and from the cities immediately surrounding Gary—from the public schools, parochial schools and homes in those cities.

Q. Have you had any demands for increase of this program? A. We have.

550 Q. From what sources have the demands come? A. Through the mail and over the telephone.

Q. How large a volume of demands through the mail? A. Averaging 30 to 35 letters a week.

Q. Have you any other demands? A. Through telephone calls and through personal appearance of mothers and teachers at the station who wonder why it is that they cannot get their particular group or boy or girl on, and we have to tell them that it is because of the fact that the time is filled.

Q. Do any of these demands come from the schools at the present time? A. They do.

Q. From whom in the schools? A. From the teachers in the various primary and secondary grades.

551 Cross-examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. Mr. Morrow, you stated that it was your intention four years ago to make this station a community station.

Are you prepared to say that that has been your attempt and purpose since that time? A. I will not say it has been our attempt and purpose since that time entirely. It has been the thought behind all of our programs, to make it a community station. It has conformed as nearly as possible to that.

Q. It has been your purpose and your desire to reach the citizens of Gary? A. Of the Calumet region.

Q. And you have not attempted to serve any other region and do not now care to serve any other region, and your programs are not prepared for that purpose? A. I do not know anything about the operating policy, other than my studio programs.

Q. Those programs are prepared with a view to serving only the Calumet region? A. That is the intention, when we prepared our programs, to serve the people of Calumet region.

552 Q. With reference to the programs that you have testified regarding, am I to understand that at the specific times indicated programs of the type described were actually broadcast in each case? A. Yes, sir.

Q. How did you gain that knowledge? A. I have been an announcer of WJKS for the greater part of four years, and an announcer on that station is at the station during the time the station is on the air.

Q. That is to say, you are on at all hours of broadcasting? A. Yes; I was.

Q. Are you familiar with the employees of the station? A. I am.

Q. Can you state, please, the names of the employees that were on the pay roll of radio station WJKS and actually broadcasting on the date of September 22, 1930?

Mrs. Willebrandt: I object to that question. It is improper cross examination. It was not gone into in the examination in chief, and has no relationship to the issues of the case.

Chief Examiner Yost: The Examiner presumes that it is for the purpose of testing the memory of the witness, and goes to his credibility.

Mrs. Willebrandt: But it is also a fishing expedition to seek information that is not in the issues in the case.

Chief Examiner Yost: The Examiner does not see where it is material at all.

Mr. Boyd: Does the Examiner hold that the witness may not answer?

553 Chief Examiner Yost: What is your purpose?

Mr. Boyd: The purpose of asking the question is that in the application of September 30 they say they have a certain number of employees, and I want to find out who they were, if he knows.

Chief Examiner Yost: He may state if he knows.

Mrs. Willebrandt: Just a minute. I object to that type of cross examination, first, because under the guise of cross examination it is a fishing expedition. This witness did not sign this application, as proved by the application itself. There is no foundation laid to indicate that he had anything to do with it or had any knowledge of the representations that were made. We had a witness on the stand who did sign it, and ample opportunity was given to cross examine as to all of these things. To ask questions of this kind under the guise of cross examination is just burdening the record and is objectionable.

Chief Examiner Yost: The policy pursued by the Examiner is such that in his opinion it is proper cross examination, giving wide latitude to such examination. He may answer the question.

The Witness: The number of employees in the station varied as far as the total number employed, and the number in the commercial division, for instance, with which I had absolutely nothing to do, and in the transmitter division which I was absolutely without knowledge of, and I would be incompetent, both through absolute lack of knowledge and inability to even guess who all of them were.

By Mr. Boyd:

Q. I will ask you to state who were the employees
554 that you knew anything about that worked for radio station WJKS at Gary, Indiana, on or about September 22, 1930.

Mrs. Willebrandt: I object to that question. It has no relationship whatsoever to the issues in this case. It is improper cross examination. It goes into nothing that is a part of the examination in chief. It is an improper method of testing memory——

Chief Examiner Yost: The Examiner ruled before that this witness might state the names of the employees if he knew. While the Examiner does not see that it is material at all to the issue, it seems to go only to the credibility of the witness in the matter of testing his memory. I can see no objection to the question being answered if he knows.

The Witness: I can state the people with whom I was associated in broadcasting of programs on the station at that time, but, as I say, I am limited, due to the fact that I had nothing to do with other departments.

Mr. Boyd: Read the question, please.

Mrs. Willebrandt: Has the examiner ruled that it is proper for him to ask all the employees that he knows anything about?

Chief Examiner Yost: Yes. The witness may answer. He may name the employees if he remembers them. Evidently Mr. Johnson would be a better witness. He pays the employees. But this witness having been there at all times should be advised in a general way of who the employees are. If he cannot answer, he can say so.

The Witness: I can name, as I said, the employees that I worked with, but I do not know the names of all the
555 employees of the station, because I never did know who all of them were.

The Witness: The employees whom I knew, with whom I was in constant contact at or about that time were Alice Murphy, Tom Warrillow——

By Mr. Boyd:

Q. What were his duties? A. Tom Warrillow was a junior employee on the staff, also an announcer. Then there were Miss English, secretary; Mrs. Robinson, who was also secretary; Miss Sheehan; Alec Alamsha. You asked me to name the people with whom——

Q. That were employees of the station. A. Alec Alamsha——

Q. What were his duties? A. He was a salesman. There was Wendell Gunther, an engineer; there was Daniel Monroe in the operating room——

Q. What was he doing in the operating room? A. He was an operator.

By Mr. Cook:

Q. Was he a licensed operator? A. Yes; he had a license. That is about all of the people with whom I was in constant contact.

556 By Mr. Boyd:

Q. I did not say anything about constant contact. A. Well, the people whom I knew that were in the employ of the station.

Q. And they are the only ones that you do know that were in the employ of WJKS at that time? A. Yes. As to others, there may have been others and there may not have been. I do not know. I am not familiar with the other divisions.

Q. With reference to police bulletins, did you at recent periods daily broadcast police bulletins? A. Those police bulletins are emergency service which are provided by WJKS at any time the police department has anything of an emergency nature to broadcast. They telephone to us and we put it on the air regardless of the program that is on at the time.

Q. I hand you applicant's exhibit 33 and ask you whether or not at 3:15 p. m. on Monday, September 16, there was a police bulletin broadcast. A. As to that at the present time, sir, I don't know of the particular instance; as I explained to the Examiner, these are taken from our program sheets which were made up the day the broadcasts were put on. Particular instances I cannot recall. It is impossible.

By Mr. Boyd:

Q. If I ask you about these other things, you will
557 not know of your own knowledge whether or not they were broadcast at the time stated? A. The feature programs, yes; because our record was made on the day that the broadcasts were put on. This program as it appears is a transcript of the record——

Q. What information does the log of your station contain as to the date of September 14 and the week following? A. It contained just what you see on that paper.

Q. Can you examine this sheet and tell which of the programs are musical and which are not musical programs? A. I can.

Q. Has there been an occasion when the foreign language programs were sponsored by any person? A. There have been occasions when portions of the programs, that is, portions of foreign language programs, were sponsored by parties. However, those programs were not the regular nationality programs which are presented as station features.

Q. Are foreign language programs sponsored on radio station WJKS? A. Special programs, yes.

558 Q. How frequently are special programs sponsored? A. As often as sponsored programs change on any broadcasting station.

Q. How often is that on your station? A. It depends upon the length of contracts.

Q. But you have had foreign language programs sponsored on that station? A. We have had certain periods of foreign language programs sponsored.

Q. What foreign language? A. Italian, for instance. Polish at one time; yes. I don't know about the sponsor on an Irish program.

Q. Are announcements made of these programs? A. Yes, sir.

Q. And foreign language programs are interrupted and a commercial announcement is made on the programs? A. Commercial announcements? Foreign programs are not interrupted at any time to advertise an article paid for by an advertiser on a foreign language program, unless the program is sponsored by the manufacturer of that article or the sales people for the article in question. Then it is not on one of our regular foreign programs.

Q. You mentioned a Miss Murphy. Who is she? A. Miss Murphy was an accompanist on the station for nearly four years.

Q. What staff did you have and use regularly in

559 broadcasting programs over the station during the fall of 1930? A. That is something that I do not recall. I would hesitate to say, because I had nothing to do with salaries of those who were employed and whose who were not would be immaterial to me. We were working on programs.

Q. Did you procure the talent for this station? A. I helped to select it.

Q. Who had charge of that? A. Mr. Johnson, Miss Murphy and myself.

Q. You merely helped to select or make the selection? A. I helped to make the selection.

Q. Do you know who they were that were selected, whether they were persons that were paid or whether they were not paid? A. I don't know anything about compensation. I had nothing to do with that.

Q. When an artist came to the studio you did not know whether it was paid talent or free talent? A. No.

Q. How many hours did Miss Murphy work during the day? A. It varied from time to time. Miss Murphy actually worked about four and a half or five hours.
560 She was on duty approximately eight hours, not a great deal more than that.

Q. Do you know a man by the name of Harry Mayer? A. Yes.

Q. What are his duties? A. He was in charge of the Gay Mill studios and transmitter room and kept it in shape.

Q. Did he work for the station at the Gay Mill Ball Room? A. For the station.

Q. How frequently did you broadcast the fact that the Gay Mill Ball Room was associated with radio station WJKS? A. Just the same as any station does a remote pick-up.

Q. How is that? A. When they have a program coming from that point.

Q. They make the announcement only at that time? A. Any announcements made of the Gay Mill Ball Room were commercial and were according to a schedule. I don't know how many announcements were made; I couldn't state.

Q. What do you mean by the Gay Mill Ball Room announcement being commercial? A. They were charged to commercial time. The announcer on duty, whenever the announcement was made, was directed to put it on the account which was turned over to Mr. Johnson showing the amount of time utilized by the Gay Mill Ball Room.
561 Q. You keep an additional record besides the log of these various programs that you have identified and testified to? A. How is that?

Q. Did you keep a record of commercial announcements made? A. Yes; we have the times.

Q. That is an additional record, is it not? A. Yes, but it had nothing to do with this part of the program.

Q. But you did keep and do keep a record of commercial announcements made on the air? A. That is kept by each one, on its own individual announcement sheet. These are filed with the contract at the expiration of the contract.

Q. What additional matter was broadcast besides the matter which you have testified about? A. This is program material. Commercial advertising or advertising announcements would not go into this, because this was kept as a record——

Q. With particular reference to exhibit 33, at what time during the day were commercial announcements made on those programs? A. Sunday there were no commercial announcements until after the church programs had signed off at 9:30. At 10:45 we returned to the air; the only
562 commercial on that day being the announcement of Gay Mill Ball Room, for the dance music which came from that point at 10:45. Do you desire Monday also?

Q. Yes. A. The Alarm Clock program is a popular recording program on which commercial announcing might be done.

Grandmother's Favorites——

Q. Is that a phonograph program? A. Yes.

The School Children's program is novelty recordings.

Q. Also phonograph records? A. Yes; an hour and a half of records. At 1:15, Happiness request program, on which commercial announcements might be made and were made.

Q. What type of talent is used on that program? A. The request program was presented by Alice Murphy and myself. Then the afternoon tea dance, at 3:15, announcements of local items of interest and sports, police bulletins, or any other material available at the time.

Q. You mean by that, you reserve that time on the air to broadcast that information if you had information of that type available. Did you always make use of it for that purpose? A. We did have at that time. There was always a certain schedule.

Graphols was an entertaining feature.

Q. What type talent? A. A mystic of some sort.

The Community studio program was a civic pro-
563 gram devoted exclusively to Gary.

Inspector Albert S. Woods at 7:30 p. m. talked on the modern police department. He was the inspector in charge of rebuilding Gary's municipal police department.

Serenading Guitarists. That might also be used for commercial purposes.

Q. Was that paid talent? A. No.

The Emerson High School Band. No announcements on that program.

10:30, diversified studio program, upon which announcements might be made.

11:15, local items of interest; another period such as the one in the afternoon.

11:30 p. m., also commercial announcements might be made. Also during the 12 o'clock program.

Q. Were you during that period broadcasting weather reports? A. Yes.

Q. Were you broadcasting the temperature of the water? A. Yes.

Q. From whom did you procure that information? A. From the Gary Beach, at Gary, Indiana, where the water is tested by city enployees.

Q. With reference to the programs in connection with the schools, is that arrangement made with the officials of the school or with individual teachers? A. With the officials of the schools. You mean, the band programs?

That is arranged with the supervisor of music
564 of the Gary public schools, and Mr. Warner in charge of the band program.

Q. In reference to this teaching of the English language to the foreign population, is that under the sanction or supervision of the schools? A. It is under the sanction, not the supervision. Miss Hayes outlined it for herself. It is one very similar to the one she uses in her teaching in school every day.

Q. What language does she teach? A. She teaches English.

Q. English only? A. Yes. She holds a teacher's license in the State of Indiana and is a graduate of a university.

Q. Is the arrangement made with her or with the school? A. The arrangement is made—Miss Hayes is on the station's staff.

Q. And she is also teaching? A. Yes. Being an English teacher, she teaches English over the station.

By Mr. Cook:

Q. You testified that you had many requests for time from school children? A. We have had.

Q. A mother would call up and want to know if her baby could not sing a lullaby on the radio, or something of that sort? A. Not confined to mothers entirely. It was people all over the region.

565 Q. You have been a radio announcer for several years? A. Four years.

Q. Are you not swamped with requests by persons who just want to talk on the air? A. We were at one time, but we have weeded that out in that particular section.

Q. But a doting mother wants to hear her child play the piano or sing a song over the radio if possible? A. The queer thing about it is that it is not the mothers who call; it is friends who are unknown to the mothers.

Q. Unknown to you or unknown to the child? A. To the mothers of the children.

Q. But many of your requests, if not most of them, are from persons who want somebody to get a chance on the air? A. People who have heard these programs and enjoy particular voices might. However, the programs are largely divided into periods which present certain groups. As to classification we did not make any distinction. We do not take those 3 feet high and those 4 feet high, for instance; we do not take them according to nationality or school, but we classify them from A to M and from M to Z.

Q. You try to be fair? A. In every possible way, and no one was barred. Even a Chinaman could broadcast.

Q. You say you have a Polish program? A. Yes.

Q. And a Hungarian program? A. Yes.

566 & 567 Q. And other foreign programs? A. Lithuanian, Croatian, Russian, German, Irish, Scotch.

568 By Mr. Cook:

Q. Did you have an office at the transmission station of WJKS? A. I did not have an office.

569 Q. What did you have there? A. There is a studio. The old studio still remains in the ball room. That has never been torn down.

Q. Did you use that studio? A. I did not use that studio.

Q. Did you use any studio at the station? A. I used the studio at the Elks Temple building, which is the studio of WJKS.

Q. But never worked down at the station? A. I worked when we first opened the station, four years ago, before the studio was open.

Q. How long did you work there? A. I don't remember exactly how long it was.

Q. In the past year? A. Not in the past year; no.

Q. Where were the records kept? A. At the transmitting station.

Q. That included the blotters that you used as showing—— A. Oh. Pardon me. I thought you meant the phonograph records.

Q. Where were the phonograph records? A. They were kept at the transmitting studio.

Q. Were they frequently used? A. They were on the programs as indicated.

Q. Would it have been possible for you to have substituted school children's programs and other strictly local entertainments and instruction for those record programs? A. As you will note, the recorded programs on the station were at times when the school children were in school, or at times when programs other than records would
570 be inappropriate.

Q. You could not have entertained or instructed school children during the morning hours when you use records? A. Most children are in school at 8:15. You will note we had one hour before that; and the commercial time, as far as indicated there, was a program of popular novelty dance records.

Q. It is your idea, is it not, as a program maker, that school children's instruction should occur during school hours? A. No, sir.

Q. Before school hours, then? A. In what connection?

Q. You just stated that the school part of your program should be during school hours? A. I did not state that, sir.

Q. What did you state? A. I stated that at the times when records were used the children were in school. During this portion of the day when we might have substituted children's programs it was too early for children to be

traveling around to the studio. Your question was, if I understood it, could we have substituted children's programs for records?

Q. Yes, sir. A. And I say that due to the fact that it was an early morning hour when children were just getting out of bed, for instance, it was inappropriate and practically impossible.

Q. For instance, you could not have substituted on March 16, 1931, from 7 a. m. until 8:30 a. m., school
571 children's programs for the following: Pep program, Musical Time Savers (dance records), Smile-a-while? A. I think you will find that parents are not given to routing their children out at 6:30 to get them to a radio station at 7 o'clock to broadcast a program.

Q. Even those who are anxious to hear their children on the air? A. They are not.

Q. On this program you show the Emerson High School Band (boys) at 12:18 to 12:45. A. Right.

Q. Do the school mistresses complain of having the children, during school hours, listen to radio in the school? A. They do not; in fact, they encourage it.

Q. They want the radio in the class rooms? A. They have radios in their auditoriums, and at the time that the bands and orchestras are on the station the pupils are called in to the auditorium to listen to those programs.

Q. Did you ever hear any discussion by friends or teachers of the idea of using the entire morning hours in school for radio programs? A. I have heard that discussed at various meetings of radio people, as to the advisability of education over the radio.

Q. But the Gary School System does some teaching by teachers by word of mouth in the class rooms? A. The Gary School System is a peculiar system. It is known as the work-study-play system. Perhaps you have
572 heard of it?

Q. Yes, sir. A. Their curricula is made up of various periods of educational academic training. In their program they have not allotted a space—however, that is under consideration, and I believe that Mr. Johnson can explain that.

Q. Then the Gary School System does not, at present, at least, encourage an all-day program for school chil-

dren's education over the radio? A. The Gary School System has never had an opportunity to encourage that.

Q. Let us go ahead. On this date, March 16, 1931, the period from 1 o'clock to 4 p. m. is the afternoon school period, in a general way, is it not? A. Yes.

Q. I find you had at 1 p. m. the Happiness Club program, Frank and Alice. Who is Frank? A. I am.

Q. And Alice is Alice Murphy? A. Yes.

Q. You could not use that period for an educational program? A. The time might have been used that way. However, at those hours the majority of children in the Gary schools are in academic class rooms, and it is inadvisable to take them from academic work into a radio program.

Q. Furnished by Frank and Alice? A. By any one.

Q. 1:30 p. m., Dr. DeLisle, entertainment feature.
573 Who is that? A. I do not know what you would call him.

Q. It was an entertainment program as distinguished from an educational program? A. Yes.

Q. At 2 p. m., studio pianologue, Bob Asche. Could that have been used for instruction and community development? A. It could, and it frequently was.

Q. We are discussing this program, now. 2:15 p. m., Nora and Bridget, an Irish sketch. Might that have been used for educational and community development purposes? A. Not to advantage.

Q. 2:30 p. m., Alice request period. Is Alice still Alice Murphy? A. Yes.

Q. Could that have been used for propaganda of a community nature, improvement, education and development? A. It could, and frequently was.

Q. 2:45 p. m., the Poet's Corner. What kind of program was that? A. That is an educational program.

Q. At 2:45 p. m.? A. Yes.

Q. Reading poems? A. The best of poems; that is, poems which are easily understood by the majority of our listeners.

Q. Paradise Lost? A. No. Paradise Lost is
574 very much too heavy for that type.

By Mr. Cook:

Q. 3 p. m., Frances Kennedy, comedienne. Could that period have been employed for these public purposes? A.

The period might have been employed for public purposes; yes.

Q. 3:30 p. m., Travel Talk (Scotland)? A. That travel talk was one of a series which covered every country on the globe, prepared by some of America's most noted travelers, and was run in connection with a musical background.

Q. Mostly music? A. No, sir.

Q. Within 15 minutes how much travelogue and how much music would be furnished? A. The theme with a musical background for the talk.

Q. In other words, music and lecture? A. The theme required approximately a minute and a quarter, and the musical background continued through the talk. It was not a lecture; it was just a talk regarding various points of interest in the different countries.

Q. Who furnished that for you? A. A syndicate service; the name of it I do not recall.

Q. By record? A. No, sir.

575 Q. You just read it? A. Wherever we use transcriptions or records I have noted the same.

Q. 3:45 p. m. That is in the way of the school hours in the afternoon? A. That is at the end of the school period.

Q. The last 15 minutes? A. No; it is next to the last 15 minutes.

Q. Dance recordings? A. Yes.

Q. That was record work? A. On there.

Q. Could you have used that time for school children's educational purposes or instruction in community development? A. That program was frequently used for that purpose.

Q. You mean, that period was frequently used? A. That period; yes.

Q. Then you signed off at 4 p. m., the end of the school hours? A. We did.

Q. I find at 3:45 p. m. on July 3, 1930, a request program. Was that educational? A. That was a popular program.

Q. Somebody would ask for "The Banks of the Wabash" and you would give it to them? A. Yes.

Q. 3:45 p. m. on February 19, local events, sports and news summary. A. That is right.

576 Q. Furnished by your local paper? A. By the local paper, also by United Press, Associated Press, Consolidated and International News Service.

Q. On January 16, 1931, 3:45 p. m. shows Marathon Dancers' program. What is that? A. Right. That was a program which presented these dancers who were then dancing in a marathon.

Q. Where? A. In the Elks Temple building at Gary.

Q. Was that for educational and community development purposes—the dance marathon? A. That portion of the program was popular at that time.

Q. You said just now it was frequently used for educational purposes. A. It was frequently used for educational purposes.

Q. This is within the past six months, it is not? A. Yes.

Q. On Monday, December 22, at 3:30. and, I assume, through to 4 o'clock, the program was the dance marathon for the moment? A. It was.

Q. And no more educational or community development— A. This was a commercial program.

Q. A commercial program? A. This dance marathon.

Q. Very well. At 12:45, arrival and departures of vessels. You have explained that, that that was the arrival of coal and iron ore at the Illinois plant? A. Yes.

577 Q. Does the Illinois plant haul any ore by train as early in the season as December 22? A. I should say in connection with that that at times the season varies. The Lake shipping closes sometimes in the early part of November or the latter part of October. Other times it runs on until the first of the year.

Q. Running in ore from Three Rivers and Duluth? A. From the Iron Range. It depends on the season.

Q. If it was the actual arrival of tonnage at the Illinois steel plant, how could it arrive if there were no steamers, except by freight on rails? A. I explain it this way. It was an error in this particular day's program, due to the copying of the program board word for word, and I explained it in that manner.

By Mr. Cook:

Q. Do you ever announce arrivals of tonnage of ore, lime and coal by freight over rails? A. Yes.

Q. You announce the receipts of materials in these steel mills in freight cars? A. Carloads; yes, sir.

Q. 3:30 p. m. on December 25, for whatever year it is. I don't think it shows. Do you know what year this
578 is supposed to be? A. 1930.

Q. This does not show the year; it only shows the date. That was chapel music? A. Yes.

Q. You had this dance marathon again on December 24. A. You notice that on Christmas day we had radio chapel music.

Q. On Saturday, December 27, two days after Christmas, at 3:30 p. m. you were still reporting this dance marathon? A. Yes.

Q. At 3 o'clock you had the children's program? A. Yes.

Q. But the dance program was going on at 3:30? A. Yes.

Q. At 3 o'clock on the preceding day, on Friday, the 26th, the day after Christmas, you had at 3 o'clock a charity program, and at 3:30 the dance marathon. A. Right. May I explain this? The dance marathon after Christmas and continuing until the end of the marathon was in connection with our Christmas basket
579-581 fund and what we know as the WJKS Community Fund for providing money and provisions and articles to keep these people throughout the year rather than just ending it at Christmas time.

Mr. Cook: May we now enter a subpœna for the log?

Mr. Cook: I understood, and I thought the Examiner understood, that the logs were here, and when the call was made for them a protest against producing them was made, and we secured a subpœna.

582 Mrs. Willebrandt: By a proper subpœna, properly issued by the Commission, requesting the production of the log books of Station WJKS. The log books are not in Washington. The subpoena was a forthwith subpoena. We cannot produce them for you now, but I will state for the benefit of the record that we have telephoned to the secretary in charge of the station to have them wrapped up and sent forthwith. I may state for the benefit of the record that when I carried the suitcase forward this
583 morning, I thought the logs were in it. I looked in it when it was here, and saw they were not, and

so I did not produce them. Had they been here, I would have had the witness use them when there was a call for their use. The records that are in the suitcase are not the records that are called for in the subpoena at all.

Whereupon further cross-examination of **Frank Morrow** on behalf of WIBO:

Mr. Cook: May I ask if what was, or is, in the suitcase, is the material from which the transcripts were made that were offered in evidence?

Mrs. Willebrandt. No, sir.

Mrs. Willebrandt: He testified that he had made them personally from the logs. He was brought here on a telephone call when you first mentioned that you challenged the statement concerning the records.

Mr. Cook: When I called for the books.

Mrs. Willebrandt: When you asked for more information concerning the records of programs.

By Mr. Cook:

Q. Mr. Morrow, who helped you in entertaining over the radio in the organization? A. You mean as to actual performers?

584 Q. Yes; actual radio entertainment—talent. A. The Monroe Brothers, the Lewis Brothers, Alice Murphy, Bill Keelan, Jack Harrington—

Q. Did they ever bring in talent from a distance and pay them for a given performance of 15 minutes, or half an hour? A. The studio program staff never to my knowledge paid any talent.

Q. So, the paid talent that worked at the microphone consisted of the regular employees? A. The regular staff of the station.

Q. How many in number, counting yourself? A. It differed from time to time. At times there were more than others.

Q. But those you have named were the staff? A. They were the major body of the staff. Of course, as I stated, I do not know about other divisions than the studio.

Q. That is the only division that furnishes entertainment? The persons you have named would have been the regular paid entertainers, such as they were? A. At the particular time.

Q. In radio practice, do you consider an announcer one of the entertainers, or is he the manager of the entertainment? A. The announcer is merely a pair of talking eyes. He is merely to bring those who are listening in the picture of what is going on.

Q. And it costs $300 a week to keep those enter-
585 tainers, besides yourself, going? A. I know nothing of the financial arrangements at all. I had nothing to do with it.

Q. Are you aware that it is stated that your purchased entertainment came to $300 a week in this studio? A. I do not know a thing about the financial arrangements. That had nothing to do with my work.

Q. What was your salary? A. $50 a week.

Q. Then, it would have taken six more like you to have made up $300 a week. Have you been continuously employed at this studio? A. As I have stated, I have not.

Q. Within what periods in the past four years, since the station started, according to your testimony, have you been employed periodically? A. The major portion of the four years, with the exception of enough time to make up approximately five months.

Q. So, there were five months— A. At various times during four years.

Q. I wish to ask you who Mr. Graphols is? A. That is G-r-a-p-h-o-s. That is a typographical error.

Q. Who was Mr. Graphos? A. He was an entertainer featured on much the same order as Prince Rajah.

Q. What kind of an entertainment did Mr. Graphos put on? What is a "reader of men," when it comes to the kind of entertainment he furnished? A. Answering
586 questions that were written by listeners regarding various things. I don't remember just exactly what the questions consisted of.

Q. Did you ever hear him broadcast? A. Yes.

Q. What kind of questions would he answer? A. Questions regarding affairs of the heart—people writing in to find out whether or not they were going to marry the woman they were going with, and that sort of thing.

Q. Speak up so we can hear you steadily. Do not drop your voice, please, sir. In other words, some lovelorn girl would write in and ask him what she should do about her lover? A. That is approximately what it consisted of.

Q. In the week of September 14, 1930, was Mr. Graphos appearing? A. Without looking at the program records, I could not state.

Q. You were there then, were you, in September, 1930? A. In September, 1930, I was at the station, yes.

Q. From a record of programs, it appears that at 3:30 p. m., Mr. Graphos, "Reader of Men," occupied your microphone from 3:30 to 4 p. m. A. A half an hour was his period, yes.

Q. Answering such questions as are illustrated by the love affairs of men and women? A. Together with—in truth, to cover the entire subject, it would be more or less on the order of chirography—handwriting, and that sort of thing.

587 Q. And he would judge the writer from his handwriting, and then read his or her character? A. That is the thing.

Q. And give prophesies. These letters were written to the station by individual persons? A. They were addressed personally to Graphos.

Q. And that was intended for the benefit of the community of Gary? A. It was part of the policy which the station at all times attempted to follow, of giving the people that which they desired, the entertainment which they desired.

Q. You mean giving the individual inquirer, in that case, for half an hour, what the individual might require? A. The volume of mail received on that program was a fair indication of the interest universally in the region in his type of programs.

Q. Was that a paid program? A. That was not.

Q. Was it a sustaining program? A. It was sustaining.

Q. On Tuesday, Mr. Graphos, "Reader of Men," appears to have occupied the stage again from 3:30 p. m. to 4 p. m. Would you say that was correct, if it is on the program as listed? A. If it is on that program sheet as listed.

Q. I will tell you that this is the program sheet attached to the application for renewal of the station's license. A. Then it is perfectly correct.

588 Q. I will state to you that it shows the same thing on Tuesday, half an hour, at 3:30 p. m.; the same thing on Wednesday—— A. I think you will find that it runs throughout the week.

Q. It does, according to this record, except on Sunday. Apparently he did not advise them on Sunday. A. No, he did not.

Q. Could that time have been used for the school children and the community development program, otherwise than in the fashion mentioned on the program? A. It could not have been used for school children, because of the fact that they do not leave the school building until 4:15. As far as the community was concerned, entertaining the public, that is, giving what they desire in programs of any sort—if they indicate they wish more of a certain program, they get it.

Q. Is it your wish to use the school bands during the daytime? A. Yes, sir, at the time when we can obtain them. We would rearrange our programs to suit their convenience.

Q. As a matter of fact, you use them in the evening, do you not? A. Yes, when the night school is on, we do.

Q. Is the "Horace Mann High school" a negro school? A. No, sir.

Q. I observe that on Tuesday, the week of September 14th, at 8:30 p. m., you used the Horace Mann High school band in the evening. A. They were called together
589 for a special concert for radio purposes, by the principal of the school, voluntarily. They appeared and the program was broadcast from the ballroom on the Lake shore.

Q. Then there are some people of the town who prefer the band in the evening? A. No, they do not prefer them in the evening. They prefer the band whenever we can produce the band, whenever we can put the band on the station, and at that particular time it was convenient to place that band on the station.

Q. What is a diversified studio broadcast program, from 10:30 to 11 p. m.? A. A program consisting of popular songs, popular music, readings—that is, dramatic readings —a program of diversified kind.

Q. How many different types of entertainment made the program diversified? A. Depending upon the length of the program.

Q. Half an hour. A. It would contain approximately four types.

Q. Four types. Have you any recollection of the diversified studio program on Wednesday, September 14, 1930? A. At that time?

Q. At 10:30 p. m. A. I have no recollection of the particular program which you mention.

Q. Did you use records at that hour? A. I don't remember the particular program.

590 Q. Did you ever use records at that particular hour in the evening, on a diversified studio program? A. If they were used, it is indicated in the program sheet.

Q. I will say it is not indicated, but I was wondering what four separate studio entertainers would be employed, that you regularly paid and kept there for a diversified studio program. Name the people that put the diversified studio program on, that were regularly there, in order to accomplish that result? A. Alice Murphy——

Q. The regular piano player? A. Yes; and as a vocalist.

Q. That would make two separate ones? A. No, because her piano would be necessary for her singing.

Q. All right. What was the next entertainment? A. Ralph Robertson, harmonica and guitar; the Lewis Brothers——

Q. What was their stunt? A. They presented mountain type dances.

Q. Mountain type dances? A. That is, the old Kentucky mountaineer type.

Q. That means the fiddle—Turkey in the Straw, or something like that? A. That is the idea.

Q. Now, the fourth? A. Then there was a tenor.

Q. Who was that? A. Tom Warrilloo.

591 Q. He is a paid entertainer? A. I know nothing about paying artists. I have stated that before.

Q. If a diversified studio program of such a character appeared on all the weekday evenings of the week of September 14th, at 10:30 in the evening, would that be the character of entertainment that was used at that period, during that week of September 14th? A. That is one program. That is one type of programs. A diversified program was a program which was made up during the afternoon, rather than schedule on our schedule for the following day.

Q. All right. Let me ask you this. You did prepare a program ahead of time? A. Yes, sir.

Q. And it was sent to Chicago, and was supposed to be published? A. The programs that were prepared were published in the local paper. I have seen other programs purporting to be WJKS's programs, that I did not know myself, and I happened to be, at that time, supposedly program director.

Q. Now, were they published in the Chicago papers? A. I have seen programs in the Chicago papers.

Q. Who put them in? A. That is what I have often asked.

Q. Whom did you ask? A. I asked Mr. Johnson.

Q. What did he answer? A. Mr. Johnson gave
592 me no answer.

Mrs. Willebrandt: I object to that. There is no proper foundation laid for hearsay testimony.

Mr. Cook: Does your Honor sustain the objection?

Chief Examiner Yost: Yes.

Mr. Cook: Here is the dominus litis, and the head of the applicant organization. He is present and he can deny what the witness states, if he disagrees with the witness.

Mrs. Willebrandt: Call him.

Chief Examiner Yost: Yes; call him.

Mr. Cook: On the contrary, I am pressing this witness as to his program arrangements. He is the program director. I have a right to ask him, if your Honor please, what he secured from Mr. Johnson, who is now present, and who is his employer, and the applicant here, as to why programs were published which the program director never saw. It is as fair as can be on cross examination.

Chief Examiner Yost: If he knows why they were published he may so state.

Mrs. Willebrandt: Not conversations.

Mr. Cook: I think we are entitled to the answer, your Honor. It is perfectly obvious that this witness offered by the applicant is subject to cross-examination on every aspect of program arrangement, because he was brought here to testify as to what the programs were.

Chief Examiner Yost: The Examiner is of the opinion that he may state whether or not he knows why the pro-

grams were published, or who caused them to be published,
if they were published. He says they were. He has
593 knowledge that they were published sometimes.

Mr. Cook: The witness has testified at length regarding programs, both on chief and in cross-examination. He now states from his knowledge that anticipated programs were published which he had never seen, and he tried to find out why they were published, and inquired, and I have asked him of whom he inquired, and he says of Mr. Johnson, the applicant, manager of the corporation. Now, we certainly are at the very root of our case on this aspect of it. I assert, and purpose to prove by the witness offered by the applicant, that their programs were hodge-podges; that they made up a program, and did not adhere to it. I might remind your Honor that in the days of the West you could go into a restaurant and they would hand you a menu that looked like the Waldorf-Astoria, and if you asked for patois de fois gras, they gave you ham and eggs, which was all they had. That is our case here. We are proving it right now, if the witness is allowed to answer. I will repeat the question, and you can make your objection.

By Mr. Cook:

Q. What did Mr. Johnson say to you?

Mrs. Willebrandt: I object to the question as not proper cross-examination. It is hearsay, and no proper foundation has been laid for any form of hearsay to be introduced.

Mr. Cook: It is the great exception to the hearsay rule, that what the applicant or petitioner in a proceeding has said that is an admission against interest, can be taken from the mouth of any witness, in order to show the attitude and the position of the applicant party to the litigation other than what he has shown on trial. It hap-
594 pens that Mr. Johnson is present and fully able to deny, if he wishes to, or to explain, and it is the fairest exception to the hearsay rule known to the law of evidence.

Chief Examiner Yost: The objection is overruled. The witness may answer.

By Mr. Cook:

Q. Now, Mr. Witness, what did Mr. Johnson say to you when you complained to him about these programs?

Chief Examiner Yost: There is no evidence that he complained to him.

Mr. Cook: Not complained, but asked him a question as to why programs were published which he, as program director, had never seen.

The Witness: When I went to Mr. Johnson and told him, I showed him a program which I had at that time. Mr. Johnson told me it would be stopped, and it was stopped, and I have never since seen other programs than that which I published.

By Mr. Cook:

Q. Let me ask you this. Do you know over how long a period these programs were being published that you had not seen? A. No, I do not, because my interests in program arrangements were confined to the Calumet Region. The programs were given to the people of the Calumet Region through our station calendar, and the WJKS news in the Gary Post-Tribune.

Q. Is that the newspaper at Gary, the Gary Post? A. Yes.

595 Q. And were they followed, and the public furnished what they were offered? A. They were supposed to be followed, as closely as it was possible for us to follow them in the course of the day's programs.

Q. Would the published program of January 15 be the one you would execute on January 16? A. Yes, it should be.

Q. Is the Gary Post-Tribune the only paper published in Gary? A. Yes.

By Mrs. Willebrandt:

Q. Is it an evening paper? A. An evening paper, yes.

By Mr. Cook:

Q. Who are Plada Brothers? A. Hawaiian guitar artists.

Q. Will you take this copy of the Gary Post-Tribune of Thursday, January 15, 1931, and read the program for Friday there appearing, calling off the items? I will state to your Honor, as he calls the hour and the topic, that I will call, from applicant's exhibit 30, the corresponding item at the corresponding time. Start with 7:30 a. m. What does it say? A. 7:30, popular record program.

Q. 7:30 a. m., Pep program (recorded marches). What is the next item? A. 11 o'clock, popular studio program.

Q. 11 o'clock, Emerson School Boys Band, from Exhibit No. 30.

596 Mrs. Willebrandt: Just a minute, Mr. Examiner. If we are going to follow through, let us follow through exactly.

Chief Examiner Yost: It has not been shown that this station authorized these programs or vouched for them or their correctness, in the newspaper.

Mr. Cook: If your Honor please, it was stated by the witness, just before this cross-examination started, that the programs, as published in the Chicago papers, were not the programs that he had superintended, and he protested to Mr. Johnson, and that Mr. Johnson said, "I will stop publishing those programs in Chicago."

Mrs. Willebrandt: Wait a minute. He did not say, "I will stop it." He said, "This will be stopped."

The Witness: Mr. Johnson said, "This will be stopped."

597 Chief Examiner Yost. Let the stenographer read it.

(The Reporter read as follows:)

"The Witness. When I went to Mr. Johnson and told him, I showed him a program which I had at that time. Mr. Johnson told me it would be stopped, and it was stopped, and I have never since seen other programs than that which I published.

"By Mr. Cook:

"Q. Let me ask you this. Do you know over how long a period these programs were being published that you had not seen? A. No, I do not, because my interests in pro-

gram arrangements were confined to the Calumet Region. The programs were given to the people of the Calumet Region through our station calendar, and the WJKS news in the Gary Post-Tribune.

"Q. Is that the newspaper at Gary, the Gary Post? A. Yes.

"Q. And were they followed, and the public furnished what they were offered? A. They were supposed to be followed, as closely as it was possible for us to follow them in the course of the day's programs."

Mr. Cook: There, your Honor. I say this is what he says he gave to the public.

Chief Examiner Yost: Which he testified, as the
598 Examiner recalls, were carried out as nearly as possible.

Mr. Cook: Yes. I want to show how nearly they were carried out on the day in question. I will say to your Honor that this, which we received as a transcript of the log, is more extensive than what was published, and I am now calling upon him to read from the newspaper the shorter statement, with the hour and the item. I will compare it with Exhibit 30, which is said to be a copy of the log.

By Mr. Cook:

Q. Your next item, at 11 o'clock, is a popular studio program. A. Yes.

Q. On the log transcript it says, "11 a. m., Emerson School Boys Band." A. Right.

Q. At 11:30, it says, on the published announcement in the newspaper, "Plada Brothers." At 11:30, on Exhibit 30—there is no 11:30, but at 11:15 it shows the weather report; at 11:20, the Palace Theater Organ, Ross Moore; at 11.45 request period, studio. What became of Plada Brothers, do you know? A. I can explain it, sir.

Q. All right. You had better explain it. A. These programs were written in our office and were sent to the Gary Post-Tribune, each period in detail. The Gary Post-Tribune has the idea, or follows the policy, rather, of no free advertising, and they could not very well refuse to print any radio program at all, but they condensed these

newspaper programs to suit their convenience, and
599 that will be substantiated by others.

Q. I state to you that Plada Brothers are not shown on your log. How did they come to condense what was not shown on your program, and does not now appear in your log, as "11:30, Plada Brothers"? A. They had taken the copy from the radio station in composition. Many times we have been forced to correct, over the air, errors which were made by the Post-Tribune in their composing room on these very things, and if errors appeared in this program, they were corrected over the air the following day.

Q. Let us go on through with this and compare it for the record. At 12 o'clock it shows, Radio Chapel, does it not? A. It does.

Q. That is here. At 12 noon, time signal; 12:02 p. m., Radio Chapel Service, with Mr. Bachemeyer.

Mrs. Willebrandt: Just a minute. If you are going to follow it, show that they correspond.

Mr. Cook: I have stated that it shows here. I am trying not to take any advantage of it.

By Mr. Cook:

Q. 12:15 p. m. is advertised in the Gary Post-Tribune as "Alice Murphy, popular songs." Here we have at 12:20, market briefs, and at 12:30, Prince Rajah, entertainment feature. Can you account for that variation? A. I can.

Q. Let us hear it. A. The fact that, as I stated
600 before, the Post-Tribune condensed our programs to suit their convenience, and any changes that were made were in that fact right there.

Q. At 1:30 they announced, "Happiness Club, Aunt Alice." Is that correct? A. Right. That is what they say there.

Q. At 1:30, you put on the American Legion Safti-gram. Can you offer any explanation of that? A. I can.

Q. Let us hear it. A. The American Legion Safti-gram is of greater interest to the public than Alice Murphy's program at that time.

Q. Did you know that at the time you made up your program? A. I did.

Q. Why didn't it appear on your script? A. As I have stated repeatedly, these programs were condensed by the Post-Tribune to fit the space they had left for our programs.

Q. At 3 o'clock you announced a popular record program, and at 3 p. m. on Exhibit 30, appears "Business Women's Program". What is the explanation there? A. That was a civic program which was substituted for the record program, which is the policy of the station at all times.

Q. At 3:15 p. m. on Exhibit 30, it appears that you put on a Travel Talk, Limehouse Section, London. Your announcement for that hour was, "Among the Poets, Frank Morrow," is that it? A. Right. "Among the Poets," as I explained this morning, is an educational feature.
601 The travel talks are also an educational feature.

Q. At 3:30 p. m. it shows "Marathon Half Hour," and at 3:30 p. m.—that is, the newspaper shows that. At 3:30 p. m. Exhibit 30 shows Frances Kennedy, comedienne. A. Right.

Q. That is on Exhibit 30. So, out of the entire program, published, even as condensed, according to your explanation, in the Gary Post-Tribune, as compared with the schedule for the same period, there was only one actual performance, to wit, the Chapel Hour, is that right? A. Yes.

Mr. Cook: If your Honor please, I would pursue that if we had more of the actual performances, according to the asserted transcript of the log here in January. We do not have the Gary Post-Tribune prior to January 1, and I ask that this sheet of the Gary Post-Tribune, being page 9 of their issue of January 15, 1931, be marked for identification as WIBO Exhibit 7-a.

(The paper referred to, page 9, issue of Gary Post-Tribune, January 15, 1931, was marked, for identification, "WIBO Exhibit 7-A," only one copy thereof being furnished to the Reporter.)

By Mr. Cook:

Q. Did you protest to the editor of the Gary Post-Tribune his garbling of your announcements? A. We did.

Q. And he was still as inaccurate as ever? A. Because the Post-Tribune holds the enviable position in Gary of being the only newspaper in the city.

602 Q. So, you had to accept whatever they printed? A. We had to take what they gave us, or nothing.

Q. So, there was not much difference between what they did in Gary, and what had been going on in Chicago, when programs you never saw were published, and you could not execute them? A. The programs which were published in Chicago were published entirely without the authority of the program staff of WJKS.

By Mr. Cook:

Q. Now, Mr. Morrow, in your programs in behalf of Americanization, and in behalf of foreign language interests, and your general programs, how frequently would you say you made what are called spot announcements, advertising announcements? A. I explained this morning, in earlier testimony, that the programs which contained spot announcements, special Polish programs and special programs in other foreign languages, or if spot announcements were put on the station during foreign programs, it was because of one thing. We had to fulfill contracts which were written by people who paid no attention to our program arrangements, who many times brought into the station, during an evening program, talent which they insisted must go on at that point, disrupting our program entirely, and without regard for any arrangement which might have been made.

Q. That is not the question I asked you. I asked you how often they occurred, no matter what the reason.

603 A. I have no recollection of exactly how often they occurred.

Q. Would that occur twice an hour? A. It would depend upon the announcement time as scheduled.

Q. Would it occur ten times an hour? A. It would not occur that often.

Q. I ask you if you can identify that piece of paper (exhibiting paper to the witness)? A. I can.

Q. Whose handwriting is it? A. That happens to be mine.

Q. That is in your handwriting? A. Yes, sir.

Q. Now, refresh your recollection from that paper, in your own handwriting, and tell me how often you would say, on a particular day, say November 1, 1929, spot announcements would be made? A. During foreign programs, you say?

Q. On that day, during any programs, no matter what they happened to be. A. These announcements were made according to the time that they were assigned in their contracts. I had no right under any condition, to refuse to put them on at the time they were contracted for.

604 By Mr. Cook:

Q. Is the paper which I handed to you a memorandum in your own handwriting, of spot announcements on November 1, 1929? A. As made.

Q. As made. Now, will you please read them into the record from your own handwriting? A. With the time after each?

Q. That time is the time of announcement, is it not? A. Yes; the time the announcement was made.

Q. All right. Read it into the record. A. Motor Cycle Mike, at 11:02; South Chicago Nash, I think that is.

Q. Whatever it is—South Chicago Nash. What is the hour? A. 11:14; Frank Flezno, 11:18; Adams Feed & Coal, 11:23; Heritage Coal & Supply Company, 11:28; Gary Service, Fuel Oil, 11:32; Consumers Coal Company, 11:40;
Superior Meat Company, 1:15; Walter E. Grote,
605 1:20; Foley's Honey & Tar, 1:25; Acme Decorating
Company, 3:15; Kickels Motor Sales, 3:18; Monarch Laundry, 1:28; it should be in the 1 o'clock period; Louis Porter, 3:25; F. Steigerwald, 3:30; Glen Park Furniture, 3:55; Bogeau Plan, 3:58; then Morris B. Sachs, 7:05; Inland Electric, 7:08; Consumers Coal Company, 7:10; Gowens Auto Parts, 10:32.

Q. This is the evening period, is it? A. This is the late evening period.

Q. From 10 o'clock to 12 o'clock? A. Yes.

Q. These are your spot announcements from 10 o'clock to 12 o'clock on November 1, 1929? A. That is right. Red Top Oil Burner, 10:37; Central Broom & Specialty Company, 11:15; Fred Hawkins, Incorporated, 11:20; Superior Meat Products Company, 11:23; Triple H Auto Parts Company, 11:26; F. Steigerwald, 11:31; Hotel Gary, 11:36;

Foley's Honey & Tar, 11:39; Inland Electric, 11:40; Porter Grady, 11:43; Monarch Laundry, 11:47; Calumet Storage Battery, 11:50; Louis Porter, 11:55; W. B. Mitchell, 11:58; Kickels Motor Sales, 12 o'clock.

Q. Is that your initial and name there (indicating)? A. It is, yes.

Q. Signed, showing that that is a proper record? A. Yes.

606 By Mr. Cook:

Q. The second paper which I hand you, dated November 2, 1929, is a similar record of spot announcements in the studio of WJKS, in your handwriting. A. A portion of this is in my handwriting.

Q. Which portion is in your handwriting? A. This portion at the top.

Q. That is the morning portion? A. That is from 11:05 a. m. to 2 p. m.

Mr. Cook: I offer the first sheet, which is all in the witness' handwriting, and the second sheet, showing the period at the upper left-hand corner, being in his handwriting, and marked "X."

By Mr. Cook:

Q. Can you testify that this is a proper record, to your knowledge, of the other hours on that day? A. If it is on that day, it is.

Mr. Cook: I offer the two sheets, and ask that they be marked for identification, WIBO Exhibit 8-A.

Chief Examiner Yost: These are marked only for identification. They are not in duplicate, as required by the rules.

607 (The papers referred to, showing spot announcements from WJKS on November 1, 1929, and November 2, 1929, were marked, "WIBO Exhibit 8-A," for identification, and were withdrawn by counsel for WIBO for the purpose of procuring duplicate copies.)

Mr. Cook: The only reason for not offering them in evidence, your Honor, is that we are not supposed to be on our case at this point, except for the suspension to hear one witness.

By Mr. Cook:

Q. Those are records of time delivery of spot announcements for advertising? A. Yes.

Q. And they were paid for by the advertisers? A. Presumably. I never received the money myself, and never had anything to do with it.

Q. But the program was interrupted to make those announcements, according to the contract schedule? A. Yes.

Q. Approximately every five minutes? A. Something on that order.

608 Redirect examination.

By Mrs. Willebrandt:

Q. I will ask you whether or not it is the policy at the present time to interrupt programs, as was the case two years ago, frequently for the making of spot announcements? A. No.

Q. About how many spot announcements have been made during the day, that interrupt any scheduled program, during the last year, generally? Of course you cannot testify as to each day, but what is the policy of the station with respect to spot announcements interrupting a program? A. Approximately four or five during the day which would interrupt programs. The others are scheduled either at the opening or closing of a program period, and that is the policy at this time, and has been for practically a year.

Q. Were the programs which you identified in your testimony this morning, and which you say were actually broadcast, interrupted, or not, by spot arrangements, in Mr. Cook's words, every five minutes? A. They were not.

Q. How often were any of those programs about which you have testified in your examination in chief, interrupted with spot announcemenst? A. I cannot state with accuracy, but I would say four times would be the limit of the interruptions of programs by spot announcements.

Q. Spot announcements and advertising in that form appeared on the program, on the days about which you testified in your examination in chief, between the
609 items of the program, or otherwise? A. Between the items of the program—that is, at the beginning of the programs scheduled.

Q. How many advertisements in the form of spot announcements would you say you are running at the present time today? A. Approximately seven.

Q. Seven spot announcements are running now? A. At the present time.

Q. Then you have some sponsored programs now? A. Yes, we have some.

Q. About how many sponsored programs, on the average? A. Three.

Q. You have testified now to seven spot announcements by paid advertisers, and three sponsored programs that are paid advertising programs. What other advertising features, if any, appear in your programs at the present time? A. There are no advertising features at the present time that I remember, without resorting to the record, other than those mentioned in the classification.

Q. Then, from your testimony, are we to understand that you have probably about ten advertisers a day? A. Yes, at the present time.

Q. Seven of those in the form of spot announcements? A. Yes.

Q. Of the spot announcements, you said that perhaps not to exceed four or five interrupt programs? A. That is right.

Q. Why do they interrupt programs? Is it because of the time of day they have contracted to have their
610-626 advertising announcements? A. It is because of the time they were scheduled for in their contracts.

Q. Are they a part of any particular program? A. No, they are not.

Q. Have you counted, in that list of advertisers, the Gay Mill? A. Yes, that is one of the advertisers.

627 *Testimony on Behalf of Station WIBO.*

Whereupon **T. A. M. Craven** was called as a witness on behalf of Station WIBO and, having been first duly sworn, testified as follows:

Direct examination.

By Mr. Boyd:

Q. Please state your name and qualifications. A. I am a consulting radio engineer with offices at present in Wash-

ington, D. C. I graduated from the United States Naval Academy in 1913, and from then until December, 1930——

Mrs. Willebrandt: Pardon me just a minute. Are you qualifying him as an expert? We will stipulate his qualifications.

Chief Examiner Yost: Very well.

Mr. Boyd: I would like to have the record show his qualifications.

Chief Examiner Yost: The Examiner has no objection.

The Witness: I graduated from the United States
628 Naval Academy in 1913 and from then until December, 1930, when I voluntarily resigned my commission as Lieutenant Commander in the United States Navy, I was engaged continuously in the arts of radio.

From 1913 to 1930, I was alternately at sea and on shore in the capacity of Radio Officer in the Fleet and in charge of administrative radio operation and engineering under the supervision of the Director of Naval Communications and the Chief of the Bureau of Engineering, Navy Department.

From 1923 to 1926 and in 1929 and 1930, I was in charge of the Radio Research and Design Section of the Navy Department.

I represented the Navy Department at the various National Radio Conferences called by President Hoover, then Secretary of Commerce, and I have represented the United States as Technical Advisor with respect to allocation engineering in practically every international radio conference since 1919.

In 1928 and 1929, I was an engineer on the Federal Radio Commission in addition to my duties at the Navy Department.

During the past two years, I have made special intensive studies of the particular phases of allocation engineering which pertain to practical broadcasting, and have had the good fortune of being able to observe conditions in various parts of this country as well as abroad.

Since 1930, I have been in private practice, my only connection with the Navy now being a commission as Lieutenant Commander in the Naval Reserve Force.

I am a Fellow of the Institute of Radio Engineers, as well as a member of other organizations interested in the
629 problems of radio.

I have collaborated in the writing of a technical

textbook with regard to radio engineering, and I have written several essays with respect to the problems of frequency allocation, all of which have been published.

Q. State what your practice is with respect to investigations regarding radio stations involved in changes of frequency? A. As a rule, I first make, or cause to be made by competent engineers, a complete engineering survey of the station's equipment, in order to ascertain the facts as to its efficiency. I cause to be analyzed every factor, including frequency control, intermediate stage balances, power amplifier efficiency, amount of distortion in the power amplifier, losses in harmonics, and so forth, and, in particular, antenna efficiency. I then tabulate the losses that seem abnormal. This is done to show the facts in so far as engineering is concerned, as to the effectiveness of the use being made of the franchise granted the station. In determining the efficiency of the station, I cause to be made a complete field strength survey of the station and its signals by competent engineers equipped with apparatus properly calibrated and compared with that used by prominent laboratories. In this field strength survey, not only are data collected as to the efficiency of the station in question, but also the character and amount of interference on the same and adjacent frequencies. This is compared with observations which have usually been taken at the station over a period of time in a qualitative manner. If another frequency has been
630 applied for, I make field strength surveys in the territory of the station applying for the frequency to determine, as accurately as possible, the amount of interference to be expected on the new frequency.

Q. Why do you exercise such precautions? A. I
631 take these precautions in order to eliminate guesswork, and in that I think I am in agreement with most engineers, that field strength measurements will give you quantitative and more exact data as to the actual strength of signals and the comparison of interference ratios.

Second, I do it to eliminate, with as much accuracy as practicable, opinions and the vagaries of the human ear. As you know, you can put people in a room and have them listen to a receiver, and some will detect interference, and some will not. Some will accept it, and some will not. It is just

a question of opinion among various people as to whether it is acceptable, or not. We find, as engineers, that it is essential, in order to eliminate guesswork as much as possible, to have some field strength ratios and have some predetermined yardstick with which to compare the actual ratios taken in the field with what is considered acceptable, or objectionable, or what not.

Third, I use it to secure data with which to compare
632 the data taken in the field with accepted yardsticks.

Fourth, in the case of a request for a change in frequency, I try to eliminate the possibility that the inefficiency of the station is the cause of the trouble, rather than the frequency assignment, and thus possibly save expense to a client.

By Mr. Boyd:

Q. What are the vagaries of the human ear? A. During a period of time I have conducted tests to find out just what these vagaries are when one listens to a station over an ordinary household receiver. I testified to this in a hearing on the revocation of General Order No. 7. I will not go through all that testimony, but if I can sum up, I will state that there was a test made in which there were eight engineers, three lawyers who had to do with radio, and——

633 Mrs. Willebrandt: I object.

Chief Examiner Yost: Let us see where he is leading, to see if it has any relation here. He may state what he knows of his own knowledge.

The Witness: I found that various people disagree as to what is an excellent program from the point of view of interference, what is acceptable, what is unsatisfactory, and what is objectionable. Engineers disagree among themselves as to the ratios of field strength which cause an unacceptable program or objectionable program; and men and women disagree. Therefore, it is a very difficult thing to say that in my opinion a certain program would be considered excellent. It might not be considered excellent by someone else.

It all came down to the ability of the human ear to discern the amount and the character of interference, and to judge the acceptability or objectionable features of it.

By Mr. Boyd:

Q. What are your standards as to objectionable interference? A. I have, for purposes of reference, divided interference into four general classes, or divided programs, from the point of view of interference, into four general classes. I consider reception, from the point of view of interference, excellent when you can notice no cross-talk in the pauses of the program of the desired station. There is a complete absence of the thing called flutter. I consider a program acceptable where heterodyne or cross-talk are noticeable in the pauses, but not noticeable except to the
634 most experienced and sensitive ears during the program transmission from the desired station. There is still an absence of flutter. I consider a program unsatisfactory when heterodyne or cross-talk are noticeable during speech, but not noticeable during music transmission. I consider it objectionable when there is cross-talk, heterodyne, or flutter present to a noticeable or marked degree, and interfering markedly with the program.

Q. What ratio of signal strength is the limit of acceptable service of the desired station, with respect to interference? A. That depends somewhat on the characteristics of the mythical average receiver, but, taking various tests during my experience, and taking what we might call an average receiver, and with average judgment of the engineers; it also depends on whether it is on the same frequency or adjacent frequencies. On the same frequency, heterodyne interference, in my opinion, will not be objectionable at ratios of 200 to 1, for 1,000 cycles difference. By 200 to 1, I mean that the signal from the desired station is 200 times that from the undesired station.

At ratios of 100 to 1, the program will be still excellent for 500 cycles difference. At 40 to 1, it will still be excellent for 100 cycles difference between the two stations on the same frequency. At 20 to 1, it will be, so far as heterodyne is concerned, not objectionable when the frequencies are 50 cycles apart, or less. Flutter, or cross-talk, or cross-modulation, will be objectionable at ratios of 10 to 1. Cross-talk is not objectionable to many people at ratios as low as 20 to 1, but I prefer 40 to 1 for acceptable service.

635 On different frequencies, 10 kilocycles separated, objectionable interference would be considered to exist between two stations separated in frequency by 10

kilocycles when the field strength of such cross-talk is as much as 1 to 1.

Objectionable interference will be considered to exist between two stations separated by 20 kilocycles, when the field strength of such cross-talk is 10 times as great as that of the desired station. Objectionable interference would be considered to exist between two stations separated in frequency by 30 kilocycles, when the field strength of such cross-talk is as much as 100 times as great as that of the desired station. For 40 kilocycles, the interfering station can have a field strength of 500 times as great as that of the desired station. These figures are gotten up as a result of observations and experience in the field, and are my best opinions.

Q. State what you know of antenna losses.

Mrs. Willebrandt: That is, just generally?

The Witness: Yes. An antenna absorbs power when supplied with radio frequency currents. Some of this power is radiated as energy in the form of an electromagnetic field. Some of this is radiated as ground waves and is useful to an aerial adjacent to the station, while some is radiated as sky waves and is not useful within a distance of several miles from the station. The rest is consumed in various ways, and is a complete loss, as it contributes nothing towards radiation, either in the sky wave or the ground wave.

Power usefully radiated is best determined by taking measurements of the actual field strength to secure
636 the effective height of the antenna. The effective resistance of an antenna consists of radiation resistance and loss resistance, and radiation resistance can best be determined as the result of field strength measurements to secure the effective height of the antenna.

We have, therefore, two types of power-consuming things, as measured possibly by radiation resistance, first, and second, by loss resistance. Loss resistance is due to a number of factors, namely:

(1) Loss in poor dielectrics in the neighborhood of the aerial;

(2) Loss in the resistance of the aerial;

(3) Loss in the resistance of the counterpoise, generally the ground;

(4) Loss due to eddy currents in neighboring conductors;

(5) Loss due to leakage over insulators, and so forth; and
(6) Loss due to corona.

(1) The loss in poor dielectrics is due to the hysteresis phenomenon taking place in all dielectrics, and most especially in poor dielectrics such as wood, concrete, masonry, trees, and so forth, which may happen to be in the vicinity of the aerial and hence acted upon by the electrostatic field about the aerial. This loss resistance is analogous to that due to magnetic hyster-sis in iron and is an inverse function of the frequency or a direct function of the wave length. The effective resistance due to dielectric loss must, therefore, increase as the wave length increases, or as the frequency diminishes. This loss is one of the most important
taking place in a radiating system and should be re-
637 duced to a minimum by keeping the field of the antenna free from unnecessary obstructions wherein a dielectric loss is likely to take place. As the highest electric gradient occurs near the end of an "L" or "T" antenna, especial care must be taken to keep poor dielectrics away from this part of the antenna.

(2) The loss in the ohmic resistance of the aerial wire should be kept low by making the wire of large cross-section and good conducting material.

Mrs. Willebrandt: Why not make the questions relate to the evidence in the case? If it is helpful to the Examiner, I do not want to interrupt at all, because we have no objection to having Mr. Craven's theories on electrical engineering placed in the record, except that they have no relationship to the particular issues here involved, unless they are connected with either WIBO, WPCC, or WJKS.

Mr. Cook: He will connect it up.

Mrs. Willebrandt: I think, if he is asked questions about one of those three stations, and then explains his answers,
we will get as much of this as will be helpful.

638 Mr. Boyd: I think this statement is important, Mr. Cook, regardless of whether it is long or short. It reaches to the bottom of this complaint. He explains about interference, and we are going to show why it is caused, if we can. We do not want to burden this record with any statement that we think is improper, but if there are certain ways of correcting interference, and this witness is prepared to say what they are, we think it is material. We would like

to have the opportunity to show to the Examiner such facts as are within the knowledge of this expert.

Mrs. Willebrandt: Usually when you introduce a doctor as an expert, you at least have him examine the patient before he starts expounding his theories of medical treatment. It seems that that is what this is. We are not objecting to his theories. If they are helpful, let them go in. I see that they are running so far afield that I must interpose an objection.

Mrs. Willebrandt: I object until they are connected up with the issues in this case.

Chief Examiner Yost: You may proceed.

The Witness: (3) A counterpoise should have the smallest possible resistance.

(4) Metal masses in the neighborhood of the antenna should be eliminated as much as possible, such as moving metal antenna masts farther apart in order to reduce the loss due to eddy currents; sometimes insulating the masts at the ground also improves the situation when the separation of masts is sufficient at the same time to eliminate dielectric loss.

639 (5) Loss due to leakage around insulators can be reduced by using suitable insulators. A large factor of safety in the use of insulators with proper dielectric constants is essential.

(6) Loss due to corona can be overcome by a proper design of insulators and antenna.

In order to secure the most efficient antenna operation for a particular frequency, it is best to design an antenna for this frequency so that the loss resistance may be at a minimum for this particular frequency.

In so doing, there is a proper relation between the frequency assignment and the natural wave of the antenna, and a proper relation between the horizontal and vertical portions.

It is also to be noted that the intensity factor in a horizontal plane is greater as the ratio between the horizontal and the vertical approaches zero.

In support of these statements I have made, I can refer to pages 863 to 868, inclusive, of a book published in 1927 by J. H. Morecroft on The Principles of Radio Communication, and pages 478 to 486, inclusive, of a textbook published by

George W. Pierce, in 1920, on Electric Oscillations and Electric Waves. These principles have not changes since, in my experience.

By Mr. Boyd:

Q. What are the various ways of eliminating objectionable interference?

Chief Examiner Yost: The Examiner is of the opinion that all this testimony must have relation and application to the questions here raised and in issue; this testi-
640 mony has all been of a general character. Unless it is to be applied to the particular questions at issue here, it has no place in this record.

By Mr. Boyd:

Q. With respect to Radio Station WJKS, have you heard all of the engineering testimony in this case? A. I have heard all the testimony of Mr. Falknor and of Mr. Atlass, I believed.

Mrs. Willebrandt: Ask him to amend his last answer. Mr. Atlass is not an engineer, and was not qualified as such. I do not want the record to assume that he gave engineering testimony.

By Mr. Boyd:

Q. Did you hear the facts stated by the witness? Did you hear the testimony? A. I did.

Q. I will ask you to state the various ways of eliminating objectionable interference? A. One is by improving the ratio of the signal of the desired station in respect to that of the undesired station, by increasing the efficiency of the desired station's transmitter in respect to its radiated power. Of course, another way is to increase the licensed power. Another way is to decrease the signal strength of the interfering station within the service area of the desired station. Of course, we have the change of frequency to another assignment in which the signal strength from the interfering stations on the new assignment would not be noticeable; and, of course, we can eliminate interfering stations altogether.

641 Q. How can the efficiency of an inefficient transmitter be increased, with respect to its radiated power? A. If the transmitter is inefficient, as proved by taking measurements, it could perhaps be improved by a better site. It might be improved by eliminating losses of the antenna system, and eliminating the losses in the transmitter. It could be done by increasing the effective height of the antenna, by utilizing an antenna system in which the energy lost in the sky wave is at a minimum.

Q. Are there any other ways? Had you finished your answer? A. I have finished my answer.

Q. With respect to decreasing the interference from other stations, how can this be accomplished? A. This, of course, has to be a matter of experiment and knowledge of the other stations, and depends a great deal on the type of the antenna system in use at the interfering station; in general I might say that a reduction of the sky wave of the interfering station might reduce the interference. The sky wave might be reduced somewhat by a change in antenna design, if the interfering station has an antenna capable of improvement in that respect.

Q. What can you state as to the interference and efficiency of radio station WJKS, from an engineering standpoint, as you have heard here? A. Of course, as you know, I have not seen the station, but as I have heard here, if I remember correctly, the power that is put into the amplifier is 3,000 watts, as testified to by Mr. Falknor. The output claimed is 1,000 watts. The actual output,
642 judging from the antenna resistance and the current as testified to by Mr. Falknor, or as stated in the application for renewal, is only 612 watts, indicating the possibilitiy of a loss in the power amplifier. However, I cannot state, in fact, that there is a loss, because the effective height of the antenna has not been determined as a result of field strength measurements, and therefore there is not sufficient evidence for me to draw any conclusions as to the efficiency of either the transmitter or the antenna.

643 By Mr. Boyd:

Q. I will ask you this, Commander. Do you recall the testimony of the witness Falknor, while on the stand, with

respect to the measurements of the field strength of Radio Station WJKS——

Mrs. Willebrandt: I object to that.

Chief Examiner Yost: He can state whether or not he recalls the testimony. That was the question, was it not?

Mr. Boyd: I have not finished the question.

Mrs. Willebrandt: It is his opinion as to whether he does recall it, and it is not a proper foundation to lay for the introduction of expert testimony. Expert testimony is based upon hypothetical questions that set up the standards of the reply when the question is asked. They are not difficult for any attorney to frame. Let them be put in that way, and then we will have help from this witness, who is a recognized expert, and who is able to help us here
644 if the questions are put in proper form.

By Mr. Boyd:

Q. First, did you hear the testimony? A. I heard Mr. Falkner's testimony.

Mr. Boyd: That is as far as I got in the question I asked. Read the question as I asked it.

(The Reporter read as follows:)

"By Mr. Boyd:

"Q. I will ask you this, Commander. Do you recall the testimony of the witness Falknor, while on the stand, with respect to the measurement of the field strength of Radio Station WJKS——"

Chief Examiner Yost: He may answer that question.

The Witness: I think I recall it. I was here and heard it all.

Mr. Boyd: I want to go through this record and pick this thing out. I can do it tonight and save time. I will prepare a hypothetical question and go on with it later.

By Mr. Boyd:

Q. I will ask you this question in order to save time. What have you to state with regard to the antenna structure of Radio Station WJKS? A. The only information I have relative to the antenna structure is Mr. Falknor's

testimony, and noticing the application, in which they stated that the antenna horizontal part was 90 feet; the vertical part was around 75 feet; and that the ends of the antenna were about 15 feet from the towers, which were not insulated. It is difficult for me, from the evidence
645 that was presented here, to form any opinion as to whether that thing is inefficient or efficient. There is not sufficient evidence for me to give an opinion on that. There were some field strength measurments taken at a point some 30 miles away which, as I remember gave results better than would be expected from the average 1-kilowatt transmitter, and far better than the reputed high absorption factor of the territory would seem to indicate possible. However, I cannot draw any conclusions from this, because I have not seen, nor do I know the equipment used by Mr. Falknor in taking the measurements of field strength, except that Mr. Falknor stated that it had not been compared or calibrated with equipment of known accuracy. Nor do I know enough about his method of measurement, especially with respect to the accuracy of his field strength equipment. It may be accurate, and it may not be. From the evidence presented here, I cannot give any real facts as to the efficiency of that antenna. I can give some presumptions, but not facts.

Q. What do you believe, from the facts that you have——

Chief Examiner Yost: In view of the last statement of the witness, the Examiner doubts the wisdom of any questions along that line.

Mr. Cook: You know, experts are allowed to presume. Otherwise they could not function, and we would not have any experts.

Chief Examiner Yost: That can be brought out by hypothetical questions, but he has no right to presume when he says the facts do not justify a presumption.

The witness: I meant that from the facts given
646-652 in the testimony, not having seen the equipment, there is not sufficient evidence for me to judge of the efficiency of that thing either for or against WJKS.

Chief Examiner Yost: Upon which to base an opinion as to its efficiency?

The Witness: The only thing I can say as to the antenna, is that in accordance with usual laws, there might be some

losses due to the fact that the thing is so close together, but I did not measure it, nor have I seen any equipment that did measure it, nor any evidence as to the efficiency of that antenna which would warrant me in drawing any conclusions whatsoever.

By Mr. Boyd:

Q. Will reducing the reported or alleged heterodyne or cross-talk to below 100 cycles, eliminate the objectionable features of this interference? A. In my opinion, if you reduce the audibility of a heterodyne to some figure below 100 cycles—preferably 50 cycles or less—and maintain a ratio of 40 to 1, or perhaps 20 to 1 for some people—that is a little too much, in my opinion—but a ratio of 40 to 1, the heterodyne interference will not be objectionable in any way whatsoever. That has been testified to by me and others at the hearing on General Order No. 7 last Monday, I believe it was.

653 Whereupon **T. A. M. Craven**, the witness on the stand at the time of adjournment yesterday, resumed the stand and testified further as follows:

Direct examination (resumed).

By Mr. Boyd:

Q. In your testimony yesterday you gave certain definitions of service with respect to interference, and
654 certain ratios at which this interference became objectionable, did you not? A. Yes.

Q. What does this mean, in general terms? A. That unsatisfactory or objectionable heterodyne interference will be reduced considerably as the frequency difference becomes less for all signal strength ratios between the desired and undesired stations; that cross-talk is unsatisfactory or objectionable at ratios of field strength intensities less than 40 to 1, between the desired and the undesired station assigned to the same frequency; that flutter makes reception unsatisfactory or objectionable at ratios of field intensity less than 10 to 1 between the desired and undesired station assigned the same frequency; that objectionable or unsatisfactory reception due to cross-talk

may occur between stations assigned adjacent frequencies when the ratio between the desired and undesired field strength intensities exceeds the amounts given in the table I presented yesterday; that such standards form a convenient yardstick of reasonable accuracy with which to estimate actual conditions in the field when measurements are taken of the field strength intensities of the desired and undesired station, and this in turn tends to eliminate opinion evidence, vagaries of the human ear, and to reduce it to facts.

Q. If the input to a power amplifier were 3000 volts, and the output as measured by antenna current and resistance were 610 watts, what would you say as to the efficiency of such a power amplifier? A. If the antenna resist-
655 ance were accurately measured I would say that something might be wrong with the power amplifier, in that its loss was more than would be expected under modern engineering practices.

Q. Could you tell the Examiner anything with respect to losses in the present system of WJKS without data in respect to antenna resistance? A. I must have evidence to be assured of its accuracy.

By Mr. Boyd:

Q. What is the best method to obtain the resistance of an antenna? A. By calculation as the result of determining the effective height of the antenna, such effective height being obtained by field strength intensity measurements, with properly calibrated equipment.

Q. Then, do you believe that without this evidence anyone can tell whether or not any antenna or transmitter efficiency can be improved to meet current good engineering standards? A. I do not know how they can, with any degree of accuracy. Of course, any competent engineer knows that an unsound application of generally accepted good engineering practice may bring poor results, but in any particular case he cannot state, without an accurate knowledge of the facts, whether or not poor results are actually being obtained.

Q. Suppose you have a condition in which the
656 ratio of field strength of the desired station is unknown with respect to interference. Could you state, with any degree of accuracy, the degree of service the sta-

tion is capable of performing, with respect to interference? A. Not with any degree of accuracy. However, if I can listen to the interference I can say whether or not it is objectionable to my ear, according to my personal taste, with respect to acceptable service, and whether or not the interference is due to cross-talk, heterodyne, or flutter, and whether the interference is loud or faint.

By Mr. Boyd:

Q. Then, if the predominant interference were heterodyne, and you noticed only faint cross-talk, what would you say as to the elimination of such interference? A. It can be eliminated in so far as the effect on the human ear is concerned, provided both the desired and the interfering station used precise frequency control, in the order of 50 cycles, say, and the ratio of field intensities between the desired and undesired station were in the order of 40 to 1, or greater.

Q. Suppose the heterodyne note were of the order of 1000 cycles. What then? A. The field intensity ratio should be of the order of at least 100 to 1, and preferably 200 to 1, almost five times as great as the frequency difference of 100 cycles or less.

657 Q. Then, if the field strength of Syracuse, on 1360 kilocycles, in the service area of WJKS, were as small as one one-hundredth of Gary's signal, would this 1000 cycles cause heterodyne interference to an objectionable or unsatisfactory degree? A. Yes.

Q. But if this difference in frequency were reduced, say, to 50 cycles, the field strength of Syracuse in Gary's area could be increased to one-fortieth of Gary's signal. Would it or would it not permit Gary to render acceptable service in so far as interference is concerned? A. I believe that it would, if the actual frequency difference, or the heterodyne note, were, say, less than 100 cycles, or without the audible range—that is, using such frequencies less than 100 cycles which might be within the cutoff point of the ordinary loud speaker used in the home. This cutoff point is usually at 100 cycles in order to prevent the hum of the household lines going into the loud speaker.

Q. Suppose the sky wave component were reduced from the antenna of the Syracuse station. What effect would this have on the service of WJKS? A. If the sky wave

component were reduced at Syracuse, I would expect that there would be less field strength in the Gary area from Syracuse, and that would, in turn, permit a better ratio of desired signal to undesired, and might reduce the interference, if any exists at the present time.

Q. Assume that you have an antenna of the "T" type, approximately 90 feet horizontal and 75 feet vertical, separated by metal towers 125 feet apart, not insulated
658 from the ground. What would you expect as to losses and radiation resistance? A. I would suspect losses in comparison with the latest engineering practice, but I would have to know the actual radiation resistance, as computed from field strength measurements, and I would like to have the ground resistance and other facts before answering that question. I can do nothing with respect to this without more facts.

Q. Would or would not moving the towers farther apart, and the antenna away from buildings and telegraph wires, tend to improve the efficiency of the station? A. Possibly. It should improve it. Just how much I cannot determine unless I know the facts as to the resistance.

Q. If you have a field strength of 3000 microvolts per meter at a distance of 30 miles from a 1-kilowatt station having antenna such as described in my previous question, what would you say? A. I cannot give a categorical answer to that, because not all the factors are mentioned. Naturally I have made a study of the field strength of 3000 microvolts, as testified by Mr. Falknor, in an endeavor to find out what the efficiency would be, and I do not know the absorption factor in the case, but with certain assumptions which will take the absorption factor of salt water, which has a very low absorption, it would seem that the radiated power output of the transmitter such as you describe is approximately 309 watts. If we take the absorption factor of .009, such as is found in the flat open country of Kansas, the power output would be 1840 watts,
659 more than the rated power output of 1000 watts. If the absorption factor were .02, which is what we find in some cases over rough average country, the power radiated from the antenna such as you describe would be approximately 2500 watts, which is far beyond what we would expect. Therefore something must be wrong with the 3000 microvolts per meter from an antenna such as you

suggest. Either the absorption in the transmission is negligible, or the absorption is large and the station is more than efficient, we will say, for the type of antenna used, or the equipment used to measure the field strength was not accurate, or, if it was accurate, an error might have been made in that observation, or not sufficient observations were made, or there might have been sky wave radiation. I note that you did not mention when the 3000 microvolts reading was taken. If it were taken in the daytime, it would not be sky wave. If it were taken at night, it might be sky wave radiation. In any case, the setup you gave me does not represent the average condition we find for certain stations of similar power. With certain stations of 1 kilowatt power, if the station happened to be of very great efficiency, the 3000 microvolts field intensity did go out 30 miles, approximately, but the absorption was low in that case. In another case the field intensity for a 1000-watt station on 1220 kilocycles—the first case I mentioned was on 500 and some kilocycles, I believe—in the 1220 kilocycle case, the 3000 microvolts was only noticed at a distance of around 10 miles. On another station on 1260 kilocycles, with 1000 watts power, at a distance of 30 miles the microvolts were around 500.

660 Coming back to the 1220 case, at 30 miles the microvolts were about 750 microvolts per meter. Going back to the lower frequency, at 30 miles the microvolts were of the order of 2000. These stations are actually in operation, and we may find that the conditions which you stated would not hold good.

It seems that the 3000 microvolts is something I cannot account for.

Q. As to field strength measuring equipment which uses no meter or measuring device in the receiver detector, and depends on a volume indicator at the receiver output to compare microvolts per meter, what would you say as to its accuracy? A. I hesitate to answer that question for reasons which may be understood, but I would also, before answering, require a check of its performance against the standards of prominent laboratories. Without this check I could not very well accept any instrument as being accurate, because my experience is that it is better practice to measure radio frequencies, modulated or unmodulated, in the detector input rather than the output, but that may

not hold good in this particular instrument you mention. I do not like to give very much of an opinion on that without comparison with the laboratory to determine its accuracy.

Q. In an antenna such as described, would you expect exceptional efficiency as to useful radiation within 30 miles, on the 1360 kilocycle channel? A. I would not expect it, but in the winter time the sky wave radiation may predominate at 25 or 30 miles. I would not expect the
661 ground wave to be anything more than normal. I do not know anything about the absorption factor.

Q. If you found the mileage separation between WFBL and WJKS, both operating on 1360 kilocycles, with a power of 1000 watts at night, to be 600 miles, what would you say would be the result in the good service area of Station WJKS? A. Under the engineering practice usually found in regional stations with respect to antennae, and with the present liberal provisions of the Federal Radio Commission with respect to frequency maintenance, I would expect objectionable interference due primarily to heterodyne.

Q. Suppose the antenna system at each station were changed and the frequency control requirements made more stringent. What in your opinion would be the result in the service area of Station WJKS? A. If the antenna system were changed to produce an increased radiated ground wave energy and less sky wave radiation than in the first instance, and the frequency were maintained to within 50 cycles or less, I would expect an improvement in the service of WJKS.

Q. As to the interference to be expected in the good service area of WJKS, if they were assigned to 560 kilocycles with 1000 watts power, and the interference they would create to other stations on the same frequency, what have you to say as to that? You may use Station WIBO as a basis if you care to. A. I cannot answer that question without either listening on 560 most carefully in and around Gary, or seeing accurate field strength measurements
662 of the field strength. Further, it depends a great deal on the antenna efficiency at WJKS and the arrangement of the antenna. I have no accurate information with respect to the characteristics of that antenna, and cannot estimate its performance either from the point of view of efficiency or from the point of view of interference proba-

bilities on 560 kilocycles. Listening to WIBO reception in Chicago would not be a satisfactory basis, or a sufficient basis for me to make a proper estimate in the case of WJKS, which is in a different location, with different antenna conditions.

Cross-examination on behalf of the applicant.

By Mrs. Willebrandt:

Q. You have mentioned antenna improvements as one of your recommendations designed, under ordinary circumstances, possibly, to eliminate interference. A. Yes.

Q. Would or would not the antenna changes that you have suggested as possibly bringing about an improvement of reception in the service area of WJKS, Mr. Craven, include adjustments of the antenna of the Syracuse station, as well as Gary? A. The improvements that I have mentioned, first, increase the efficiency by some means, perhaps, of the antenna of WJKS. That would help to increase the ratio of desired signal to undesired in the service area. Also an improvement in the antenna, if it can be improved —I have not seen it—of the Syracuse station, would
663 also tend to reduce the interference in Gary's area, and that also would help to increase the ratio between the desired and undesired signal in Gary.

Q. Have you ever examined the Syracuse station? A. I have not.

Q. Have you ever examined or seen the Gary station? A. I have not. My assumptions were that these things were capable of improvement. I think I made it clear that I did not know whether or not they could be improved.

Q. Assuming they can be improved, your position is that improvement to Gary might increase the signal enough to help push back the interference a little farther? A. If the antenna can be improved—and my theory is that it can, judging from other similar instances in other stations —it would increase the ratio between the desired and undesired signal, and therefore consequently improve the service of the desired station, the nearer station.

Q. I may say, in preface to my question, Mr. Craven, which I am going to ask you next, that it is not designed

to secure from you any modification of your reply or any elaboration of your recommendations for very exact and prolonged accurate field strength measurements in order to arrive at an exact mathematical and accurate engineering conclusion; but have you any reason to believe that an engineer, trained and qualified as such, who has actually listened throughout the service area of any station, and who has made some observations of that, would not be better able to judge of the interference, and even its causes,
664 than an engineer who deduced, from impartial facts, his conclusions? A. I hope you have not drawn any conclusions from my testimony that I thought that the engineer who did examine the station was unable to draw any conclusions of a positive nature. I believe, as I mentioned in one of my answers this morning, that the engineer could, or any person, including myself, could determine whether or not there was interference, and the character of that interference, and whether it was loud or whether it was faint, and whether it was objectionable to his ear or not. I would like to make clear that I have witnessed many times tests of the ability of an engineer to judge whether a program is excellent from the point of view of interference; whether it is acceptable; whether it is objectionable; or whether it is not. I do know that there are various standards among engineers, of what we consider objectionable and what we do not consider objectionable, and that these standard- vary just as much among engineers as they do among other people. All I am trying to say is that if you do have field strength measurements of some degree of accuracy, and can compare them with a yardstick, you can give probably it better than your own opinion, because you eliminate the factor of the human ear as to what the conditions are.

Q. Your results, then, are more mathematically accurate, and have been weighed better, and are less in the opinion class? A. That is my stand on the thing. Others who can see it can judge better from the actual results.

Q. In connection with that, it is well known that poor folks have poor ways, are regional, stations do not
665 always conduct these very elaborate tests. How long would you think a test should be in order to be as ideally accurate as you have set up? A. I do not like to say that regional stations are "poor folks" because I

know that in many cases the so-called poor folks have been local stations, and they have gone through in order to determine the facts. Naturally no one likes to bear a large expense, but where a change in frequency is involved, and the issues are so great, it is sometimes necessary to bear that expense if they want to get an improvement, and it would take more than one or two observations to make that survey.

Q. To reach these ideal standards you have set us? A. I do not like to call them mathematical or ideal standards. They are practical measures.

Q. As perfect engineering standards as we can get? A. Of course, I do not want to have such precise things as you consider in a laboratory. All those who are familiar with it consider these more or less practical standards, and they can be arrived at within a reasonable time—at least not more than a week's measurement over a period of time. That would not give all the facts, but that would be sufficient.

Q. A week with an engineer, using all his time and his apparatus? A. Yes.

Q. What time of the year would you say that week
666 ought to be? A. Of course, you are bringing in questions of economics to this thing.

Q. No. I mean, does weather affect your results at all? A. Of course it does.

Q. So, if you choose your week in the summer, it would not be an accurate picture of winter reception, would it? A. Not at all. Neither would winter be an accurate picture of summer reception.

Q. In order to get an accurate picture, you should have more than a week, and you should have these tests conducted periodically through a fair range of weather conditions, should you not? A. The best way to do it is, of course, to have the station itself make observations of its own during the year, and then check those observations with your engineer, by taking field strength measurements which you can use as a yardstick. Two measurements taken at nighttime are very dangerous.

Q. As an engineer, you point out the inaccuracy of merely ear results? A. Yes. That depends upon the person.

Q. The service area, from the standpoint of the reception, so far as the public is concerned, means average ear

results, or average mechanically measured results? A. In order to best illustrate that, what I really mean is this. This is a little aside from the point. This can be best demonstrated by a particular type of experiment which I would like to have you come to and vote for yourself,
667 as to whether you consider a certain degree of interference objectionable to you or not. I think you would be surprised at your own results. I have what we call the average citizen accept far more interference than the engineer does. You cannot judge by that. The engineer is probably trained to listen for that one point of interference, and when he notes — he will put it down. The variation between engineers is great. The variation between men and women is great. Men accept more than women in the way of objectionable interference.

Q. Then, you would say that consistent complaints of interference by listeners who, as you have pointed out, accept more interference than engineers, would probably indicate a greater volume of interference than an engineer's report? A. Engineers would indicate a greater volume of interference than the public?

Q. Yes. A. Engineers always complain of interference before the public does.

Q. You are correcting me properly. I will turn my question around. The public objecting would indicate that there had been a much greater volume of interference before they objected than in the case of an engineer? A. Yes.

Q. What would you say as to interference, objectionable or otherwise, where you can hear another program coming in distinctly enough to identify the call letters? A. You mean faintly?

668 Q. Yes, or otherwise. A. When do you hear that?

Q. At night, when you can hear the call letters of another station. A. Do you hear it during the time the program of the desired station is on, or during the pauses?

By Mrs. Willebrandt:

Q. Ordinary receiving sets have directional antennae, do they not? A. Some have.

Q. Most modern sets have, have they not? A.
669 They used to have them. I have not a directional antenna on mine. I have just an ordinary antenna.

None of my friends have directional antennae. They discarded them some time ago, but they do have them, all right, and they used to be sold in large amounts.

Q. You would say, then, that most of them now do not have them? A. The reason we have not a directional antenna on ours is because of the fact that sometimes we could not get some of the stations we wanted, and we did not want to have the coil moving around. Many people have sets with directional antenna on them.

Q. Would you say that hearing from a receiving set that does not have a directional antenna, a program of an interfering station coming in loudly enough so that you can identify the call letters of that station, is or is not objectionable interference? A. I really want to be fair to you in answering this question. If, during the actual transmission of the voice or the music, you can hear in the background that interference, it is objectionable, naturally. If it is faint, you might have a hard time detecting it. If you hear it only during the pauses, I do not call that so objectionable. If you hear it during the speech, and not the music, it brings it down on the border line between being acceptable and objectionable. It depends on what your test is. What you will stand for. It depends on the listener a great deal.

Q. What is your engineering judgment as to the objectionable interference—not technically, but just
670 average. As an engineer, what do you say people in the community ought to have, reception where they do not hear in the background another station coming in, or reception where they do hear another station coming in in the background? A. I would like to give my definition of what I consider excellent service.

Q. I do not want the definition now. We have had all that. Let us get down to what you think as an engineer, people in a community ought to have—reception where another station is coming in as a background during the music and the speakers and announcements, or faintly coming in, or not? A. I do not like to answer that question, because they might not be able to have any service at all if they did not have any interference at all. Most of the stations have interference, and some of us will stand interference in order to get our own programs.

Q. I am not asking what you stand. I am asking what your standards as an engineer are. What kind of service do you believe, as an engineer, you would call good service to an ordinary ear—where they can hear in the background two stations—— A. I would consider it acceptable service where there is cross-talk and heterodyne in the pauses of the transmission of the program from the desired station, as a background, but not with sufficient strength to render the reception unsatisfactory to the majority of people during the actual transmission of the speech and music; and there is no flutter. That is acceptable service.

671 Q. Just laying your notes to one side for a minute, would you as an engineer come here and testify that a community was getting satisfactory service if you went around all throughout the community and listened in on receiving sets, average, modern, up-to-date receiving sets, and wherever you went you heard another station coming in in the background of the home station? Would you call that satisfactory service, if there was not any flutter, if there was just a little murmur in the background so that you could faintly distinguish the call letters?

Mr. Cook: If the Examiner please, we object to that question because there is no foundation laid in this record showing that kind of a condition in Gary, Indiana.

Mrs. Willebrandt. I have not tied it to Gary, Indiana. I am testing his standards of good, acceptable, and other kinds of service here. The question is proper.

Chief Examiner Yost: The Examiner is of the opinion that it is proper cross-examination.

Mr. Cook: The record will show that there is no foundation laid in the evidence of this case to support Mrs. Willebrandt's question as a hypothetical question proper here.

Mrs. Willebrandt: Certainly it is hypothetical.

Mr. Cook: Then we renew our objection, because that presupposes a premise laid, and a predicate for the question in the record in this case, and there is no such predicate, and no such premise.

Mrs. Willebrandt: In direct examination he was reading the definitions of what he called acceptable and satisfactory service. I am getting right down to brass tacks, as to

whether he would call certain conditions acceptable
672 service. This is not all the question.

Mr. Cook: Now, Mrs. Willebrandt, you do not assert that that is predicated on proof in the record, so as to be a proper hypothetical question addressed to this case?

Mrs. Willebrandt: The question stands. I have asked it.

Mr. Cook: Then I object, your Honor, unless counsel will assent to the proposition that it is not predicated on proof. It is not a predicated question, there being no proof of such universal condition in Gary, Indiana, resulting from operations at WJKS, and it should go out on my objection.

Chief Examiner Yost: There has been considerable testimony in this case which, in the opinion of the Examiner, justifies the question of Mrs. Willebrandt.

Mr. Cook: As a predicated hypothetical question?

Chief Examiner Yost: The Examiner would not say
673 that that was true.

Mr. Cook: That is all I wanted to have in the record.

Chief Examiner Yost: But the witness may answer the question as put to him.

By Mrs. Willebrandt:

Q. You can answer that yes or no, and then explain it. A. I do not want to answer it yes or no, because the question is one in which the degree of interference in the background is not described.

Q. I am just giving you what you hear on receiving sets throughout a community—if you did hear that—and I ask you how you, as an engineer, then, would report that service; whether you would say it was satisfactory or not? A. All I can tell you is this, that your definition of "faint" and my definition of "faint" may be different.

Q. I am asking yours. A. If it is faint, I call it acceptable service—very faint.

Q. Even though you may be able to identify the call letters and the program of the outside station? A. If the strength of that station is of the order of less than 1/40 of my desired signal, from the various tests that we have made of various people and their ability to accept or reject the desirability of a program in their own opinion, that type of interference is not objectionable—not to
674 my ear, and not to the ears of most people.

Q. Suppose you did not have any instruments with

you, and you were just an engineer, with the knowledge of an engineer, without any equipment, and you went throughout a territory and listened in on the receiving sets that the people in that community had, and you saw, as you listened, that they were average receiving sets and in most of the places where you listened, or in many of them, you found that you could, with your ear, when the home station was tuned in properly, detect a foreign station's program and call letters, with heterodyne interference. Would you say that was good reception, satisfactory reception, or not? A. If they had a lot of heterodyne, of course it would be objectionable. If you can hear the heterodyne it is audible. There might be heterodyne present but not audible.

Q. I am just talking about you, and what you would report when you had that experience. A. If you can hear that heterodyne, and it is rather an intense whistle, or an irritating whistle, to my ear, naturally that would be objectionable.

Q. Suppose, then, you had your instruments with you, and you found the heterodyne was 100 cycles. How
675 would you classify that? A. Personally I cannot hear 100 cycles. My ear unfortunately does not hear it. That is my misfortune in that respect.

Q. Having your instruments with you, you might determine that there was a 100-cycle interference. A. I could not hear it. Some people can.

Q. Would you say that it was objectionable, if you found that there was a 100-cycle heterodyne interference coming in, along with distinguishing the call letters of a foreign station? A. If I cannot hear 100 cycles, I do not see how I could say that the interference was objectionable.

Q. I am asking what your conclusion as an engineer would be, and what report you would give with respect to the satisfactory character of the service. A. I would have to base my opinion on the opinion of other engineers.

Q. What is your standard?

By Chief Examiner Yost:

Q. Do you regard 100 cycles as objectionable? A. I personally do not regard 100 cycles as objectionable if the field strength is of the order of 40 or less. That is a standard which I maintain—my own standard. That was the result of the opinion of a group of engineers, that when

the field strength ratio is better than 40 to 1, 100 cycles is not objectionable.

676 By Mrs. Willebrandt:

Q. Do you base that on your ears? A. I base that on the ears of a group of engineers, and also laymen. Mrs. Willebrandt, this thing could be best illustrated to you, and to everyone here, by a demonstration of a character of interference. You cannot very well describe it. You are talking about somebody's ears, and you cannot very well describe the thing. I would be very glad at any time to demonstrate it to you, so that you could understand and ask questions on it.

Q. Assume a ratio of 40 to 1. Would that change your answer? Is that what your answer was? Were you assuming a ratio of 40 to 1 in your replies? A. The reply to the previous question?

Q. Yes. A. I was saying that I cannot hear 100 cycles at all. I cannot hear a heterodyne of 100 cycles. Unfortunately, I am deaf on certain cycles on which other people are not deaf. In my opinion I base the 40 to 1 ratio on the results of several tests where the people were men, women, and radio engineers, who happened to be men. Their opinion, as a result of all these tests—and we collaborated them all—shows that at 200 to 1, 100 cycles is considered excellent service. They could not detect anything in the back-
677 ground. At 100 to 1 it was also excellent service. Some engineers noted—and I can give you the votes if you want—heterodyne interference, and others did not. At 40 to 1 it was noticeable to the engineers and the large majority of them voted it acceptable service at 40 to 1. At 20 to 1 it became objectionable and unsatisfactory.

Q. Then you would say that 40 to 1 was satisfactory. That is your opinion? A. That is my opinion of what the average people will accept.

Q. Just you are testifying, not the average people, Mr. Craven, and your opinion here is in this record to be weighed. I am trying to find the values. Perhaps you got your values from what you found the average to be. A. My opinion is 40 to 1.

Q. Do you consider 40 to 1 acceptable or not? A. That is acceptable service in so far as heterodyne is concerned.

Q. You would not consider it objectionable until it got to 20 to 1? A. 20 to 1, yes.

Q. You would not call it objectionable if, throughout the local community, you sat in at the receiving sets which were average receiving sets, and found a 40 to 1 interference, and such cross-talk that faintly you could distinguish the call letters of an incoming station?

678 Chief Examiner Yost: The witness may answer.

A. At 40 to 1 I would not expect——

Mrs. Willebrandt: Excuse me just a minute, Mr. Examiner, but if this witness's testimony is to become as useful as it ought to be, as a proffered expert, and as I believe he is capable of making it, we must get down to a yes or no standard of what we can measure it by.

By Mrs. Willebrandt:

Q. That gives you a condition. Won't you answer yes or no to it, and then explain all you want to?

Mr. Boyd: I think the witness ought to be permitted to answer as he sees fit.

Chief Examiner Yost: Where questions can be answered yes or no, they should be answered that way, and the explanation will be permitted to follow.

Mr. Boyd: Is he required to make the answer yes or no?

Chief Examiner Yost: Where that is proper; where it can be answered yes or no.

The Witness: You see, I am in an embarrassing position here, Mr. Examiner, in talking perhaps a little different language from the Examiner. Your definition of "faint" and so forth may not be mine.

By Mrs. Willebrandt:

Q. I am only asking for yours, Mr. Craven. Read the question again.

"Q. You would not call it objectionable if, throughout
the local community, you sat in at the receiving sets
679 which were average receiving sets, and found a 40
to 1 interference, and such cross-talk that faintly you could distinguish the call letters of an incoming station."

By Chief Examiner Yost:

Q. Would you or would you not? You can answer that and then explain. A. No; I would not consider that objectionable, with 40 to 1 interference.

By Mrs. Willebrandt:

Q. Assuming that a station is operating on 1360 kilocycles, with 1000 watts power, how high would its antenna have to be in order to suppress the sky wave? A. There are three general ways of so-called sky-wave repression in the antennas.

Q. Just a minute. Let me refresh your recollection as to what I am driving at in that question. In your examination in chief you said, reading your reply, that sky waves could be reduced by making the antenna higher. A. I did not say that—oh, yes; the effective height higher.

Q. Yes. A. I did not say that. I said the efficiency of the antenna might be increased in so far as useful radiation is concerned, by an increase in effective height. It has nothing to do with the sky wave.

Q. What would be the purpose of increasing that effectiveness? Would it be to get rid of the sky wave? A. I was not referring to that at all in that answer.

680 Q. Does not the sky wave cause interference at distances? A. Yes.

Q. Then, if you found that a station operating on 1360 kilocycles was actually causing interference, and coming in on another station at a distance, and you, as an engineer, wanted to correct that, what would you do? A. I would do the same thing that some others have done. I would try to find ways of increasing the ratio of the desired and undesired signal. That is the first general way. In trying to increase that ratio I would try to improve my own antenna system first by trying to increase its efficiency with its present general layout.

Q. Assuming you got its efficiency otherwise up to the maximum, and you still found your sky wave coming in and causing interference, and you wished to remove that, would you increase the height of the antenna? A. I would change, probably, the antenna structure entirely, by one of three methods.

Q. Assuming you did all the changing that you wanted in the structure of it—I am just addressing my question to height, because you talked about height. A. You are talking about quarter-wave and half-wave antennas, and I am not.

Q. I am only talking about what you said. You said you would raise the height of your antenna structure. Assuming you have made every other change in the antenna structure of a station you wished to correct an interfering sky wave from, and you still find that your interfer-

681 ing sky wave is coming on——

Q. Would you or would you not elevate your antenna? A. Not necessarily. I did not say that I would increase the height of an antenna in order to eliminate the sky wave. I said the efficiency of an antenna in so far as its radiation is concerned could be increased by greater effective height. That has to do with the efficiency of the transmitter, in respect to its radiated wave, both sky wave and otherwise.

Q. Can you tell us what you would do? A. Sky wave elimination is another factor entirely from merely increasing the effective height. The sky wave involves a complete change in the type of antenna, so that the horizontal radiation can be increased and the vertical radiation can be decreased. That is done by three or four general methods, one of which is impracticable, including a full wave vertical antenna. The other way is a half wave vertical antenna. Another way is by using a flat top antenna, and a combination of vertical, and changing the relation of the various currents in phases.

Q. How much does each one of these ways cost? A. I think the latter could be done for around a thousand dollars, if you already have the antenna towers. It is the newest development.

Q. You have suggested several different ways. Would you try them in turn? A. No; I would try the cheapest one first.

682 Q. And then try the others in turn. How much do the others cost? A. It depends on your frequency. If it is for a frequency of 1360, which I believe is a wave around 220 meters, I might try a quarter-wave antenna.

Q. How much would that cost? A. It depends on the height of it. Let me figure it out. That would be a tower of 180 feet high.

Q. An antenna 180 feet high? A. A single tower 180 feet high.

Q. How high is the average antenna? A. The average antenna is around 125 to 150 feet.

Q. You would run this up to 180 feet? A. Vertical antenna.

Q. You do not know how much that would cost? A. I have not any price on a tower that high.

Q. You would scrap the old equipment and put that up. If that did not work what would you do next? A. I would expect that would improve conditions quite considerably. It has in other cases.

Q. But if it did not—you would not positively say that that would cure every interfering sky wave, would you? A. It will not cure every interfering sky wave.

Q. What would you do next, to attempt to cure it? A. I don't know. It would depend upon the pocketbook of the individual, I guess, and what he wanted to do.

Q. As a hypothetical question, referring to no
683 question by name, if two stations were operating on 1260 kilocycles, at 600 miles apart, or thereabouts, and you, by tests satisfactory to yourself, found that there was objectionable interference within the proper service area of one of them, would you proceed to work on the antenna in order to correct that? A. That would be one of the first things I would do.

Q. All right. How many of the stations would you work on in connection with the antenna? A. My own first.

Q. Then, suppose you found that the interference had not been removed. What else would you do? A. I would probably enter into negotiations with the others with respect to interference, such as certain of my clients have done.

Q. Suppose the other station gave you permission to readjust and remake its antenna satisfactory to yourself. Let me ask you, Mr. Craven, if you improved each one according to your ideas, up to its maximum, would you not increase instead of decrease the area of interference?
684 A. I would decrease the area of interference.

Q. Why? A. For the simple reason that I would

expect, by the improvements that I made in the service area of my own station, the loudest signal due to a ground wave, and a decrease, to a large extent, in the sky wave. In the other station I would have decreased their sky wave and increased the ground wave, so that all we would have then would be absorption of the ground wave. I would also have had both stations on a precise frequency control so as to eliminate the factor of heterodyne, and I would expect that in the service area of my own station my signals would be so loud in proportion to the interfering signal that you could not notice any interference.

Q. If you did that for each station, would it be expected to decrease the accepted good service area? A. I would increase the good service area.

Q. Would it increase or decrease the extent to which you sent your signal? A. It might go so far as to increase the field strength of my own station signal to a little greater distance, and it would also have eliminated the interference. Such a thing has been done in practice.

Q. That presupposes control over both stations? A. Or cooperation.

Q. And it presupposes a rough estimate of how
685 much expense? A. That depends somewhat on the circumstances of each station. Assuming that each station had the poorest type of antenna, it would probably involve considerable expense. Just how much I do not know.

Q. Would you say that one station, going to all that expense without control over the other station, would be able to completely eliminate interference? A. The word "control" is not necessary. It is possibly of advantage to have control of the other station, but it has been done through cooperation, because usually both stations are suffering from interference and both will benefit.

Q. What stations now broadcasting on these high frequencies have succeeded in completely suppressing their sky wave? Do you know any that have? A. I do not know any that have completely suppressed it, no. They have reduced it.

Redirect examination.

By Mr. Cook:

Q. Commander Craven, in the engineering science relating to radio transmission there are many mechanical as

well as scientific problems, are there not? A. Yes, sir.

686 Q. Do you consider that Station WJKS has been completely "experted" for all purposes of mechanical and scientific improvement to the maximum of its power under its license? A. Of course I do not know much about WJKS, except the testimony given here.

By Mr. Cook:

Q. Commander Craven, if you knew of a station operating on 1360 kilocycles about which there had been complaint, in a sporadic or general way, as to interference, and you further knew that that station was about to install a new transmitter, would you consider that evidence and testimony as to past interference under an antiquated or defective installation should be considered as showing the

687 anticipation of interference when the new installation goes into operation? A. Of course, I would know nothing about the new installation, and therefore I could not, myself, estimate the interference or lack of interference, or the improvement in efficiency of the new installation, and not being able to do that, I would not be able, without any other premises in the case, to testify as to that.

Q. Then, assume, Commander Craven, that an existing installation in a radio station operating on 1360 kilocycles had resulted in conditions which had been ascertained practically. Would you expect a new installation to result in precisely the same performance as the old installation? A. I would not expect anyone buying a new installation to buy anything as poor as the old one if he wanted to make improvements.

By Mr. Cook:

Q. As a practical matter, do two transmitters work precisely alike?

Chief Examiner Yost: Transmitters having the same characteristics, the same manufacturer and the same capacity?

Mr. Cook: No. My question is, do any two transmitters work precisely alike.

The Witness: It depends on what those transmitters are used for, whether they are used on the same antenna, and under the same load conditions, or not.

688 If two transmitters are exactly alike and are used under the same conditions, there ought to be the same result, if they are used under the same circumstances.

Q. Suppose you have two transmitters not of the same type and character of manufacture and design: will they work precisely alike? A. I could not say that they would.

689 *Definitions of Service with Respect to Interference from Radio Stations.*

(This does not include static and noises from electrical machinery, etc.)

Excellent service is service which is substantially free from heterodyne, cross-talk and flutter. Such interference is barely noticeable to the trained or sensi- ear during pauses in the transmission of a program from the desired station and is not noticeable during the transmission of either speech or music.

Acceptable service is service in which Cross-talk and Heterodyne can be detected as a background in the pauses of the transmission of a program from the desired station, but not of sufficient strength to render unsatisfactory reception to the majority of people during the actual transmission of speech or music. There is no Flutter.

Unsatisfactory service is service in which Heterodyne and Cross-talk can be noticed during the transmission of speech, but is not particularly noticeable to the majority of people during the transmission of music. There is no Flutter.

Objectionable service is service in which Heterodyne, Cross-talk or Flutter are plainly noticeable and are an irritating factor in the reception of the desired program.

690 The following represents a reasonably conservative measure of the ratio between the signal strength of the desired station and the interfering station in the matter of Cross-talk, Heterodyne and Flutter interference as pertaining to the type of service rendered:

Stations Assigned same Frequency—Different Programs.

Type of service.	Frequency difference in cycles.	Relative signal strength of desired station to	Undesired station.	Character predominating interference.
Excellent	500	200	1	
	100	200 & 100	1	
	50	200, 100 & 40	1	
	25 or less	200, 100 & 40	1	
Acceptable	1000	200	1	
	500	100	1	
	100	40	1	
	50	40-20	1	20 cross-talk
	25 or less	40-20	1	20 cross-talk
Unsatisfactory	1000	100	1	Heterodyne
	500	40	1	Heterodyne
	100	20	1	Het. & c. talk
	50	10	1	Flutter & "
	25 or less	10	1	" " "
Objectionable	1000	100	1	Heterodyne
	500	20	1	Het. & c. talk
	100	10	1	C. talk & Flut
	50	4	1	" " " "
	25 or less	4	1	" " " "

691 *Different Frequencies.*

Unsatisfactory or objectionable interference may be said to be present if the field strength of the interfering station at the point of reception exceeds the following ratios:

Frequency difference.	Desired station to	Interfering station
10 kc.	1	1
20	1	10
30	1	100
40	1	500
50	1	1000

J. A. M. CRAVEN.

April 29, 1930.

22—5530*a*

692 **James R. Macpherson** was called as a witness for and on behalf of respondent WIBO and, having been duly sworn, testified as follows:

Direct examination.

By Mr. Boyd:

692½ Q. Where do you live? A. Homewood, Illinois, a suburb of Chicago.

Q. What is your occupation? A. Merchandising director and assistant to the president and general manager of Radio Station WIBO.

Q. As assistant general manager of Radio Station WIBO, what are your duties? A. The general direction of the activities of the station; to assist in the handling of the affairs of the station with relation to programs, broadcasting and other matters pertaining to the station operation.

Q. Are you familiar with the programs broadcast from radio station WIBO? A. I am.

Q. How long have you been in that position? A. More than a year; since about November, 1929.

Q. Have you had any earlier radio experience? A. No.

Q. What was your occupation prior to that time? A. Sales and advertising work.

Q. I hand you a document which has been marked for identification "WIBO Exhibit 10-A," and ask you to explain what it is. A. This is a transcript of program logs of WIBO for February, March and April, up to April 19. I believe the programs for Sunday, February 6, are missing from this transcription of the program logs.

Q. Do you know why that date of February 6 in missing? A. Presumably an oversight—left in the office.

693 Q. Do you know that to be a true and correct copy? Are you able to say whether or not it is a true and correct copy of the radio log of Station WIBO? A. It was made under the direction of myself and Mr. Nelson from the initialed program logs on file in our office.

Mr. Boyd: We now offer in evidence respondent's Exhibit 10-A.

Chief Examiner Yost: It may be admitted.

(Two copies of programs of Station WIBO were received in evidence and identified by being marked "Docket 1156, Respondent WIBO Exhibit No. 10-A," and are filed with the two copies of transcript in possession of the Commission.)

By Mr. Boyd:

Q. Mr. Macpherson, are you familiar with the policy of WIBO with reference to the time allocated to the various actual broadcasts? A. The policy of WIBO is to preserve a well-balanced and diversified schedule of broadcasts in the form of entertainment, information, news, religious programs, educational programs, the broadcasting of addresses of prominent citizens, affairs with relation to community and school activities and, to the best of our ability, a program as diversified and complete as we can produce. I said, "program"; I mean, a schedule of programs as diversified and complete as we can put upon the air for the purpose of entertaining, informing and serving our listeners and the public generally.

Q. How many separate changes of programs per week are broadcast by WIBO? A. Between 300 and 400 changes a week. I made recently a count showing 348
694 changes in the program.

Q. Does WIBO have any chain affiliations in its broadcasting? A. We have had an affiliation with the National Broadcasting Company.

Q. How many National Broadcasting Company programs is WIBO broadcasting at the present time? A. Fifty-eight chain programs were scheduled to be broadcast last week, I believe it was.

Q. What percentage of these programs are sustaining programs or programs from which WIBO does not receive any revenue, or for which you pay in order to give your listeners the features of entertainment? A. Twenty-one of those programs, among the 58 just mentioned, were broadcast without any compensation being received therefor by WIBO. We pay the National Broadcasting Company for twenty of them in order to provide a better quality of diversification of entertainment for our listeners, and from time to time this number has been much larger because of the policy of WIBO to provide the best possible entertainment.

Q. Does WIBO have any local talent? A. We have very good local talent, employing ten musicians in our orchestra which is on duty regularly at all times, and we have access to other talent of very excellent character. Also by reason of our affiliation with the Publix-Balaban & Katz theaters we have access to very good talent indeed and of very great popularity. Each Wednesday night we broadcast direct from the Chicago theatre a program of symphonic
695 orchestral music in conjunction with a regular weekly Chicago theater program broadcast by remote control pick-up located in the Chicago theater; and at frequent intervals we broadcast other remote control pick-ups from the Oriental Theater and Uptown Theater and other places connected with this chain, which is the largest chain of moving picture theaters in Chicago, having recorded something over 25 million admissions last year.

Q. That is a service exclusively broadcast by radio station WIBO in Chicago? A. Yes. That affiliation with the Publix-Balaban & Katz theaters is exclusive for WIBO.

Q. I will ask you to explain for the record what the affiliation is between the Publix-Balaban & Katz theaters and Radio Station WIBO. First, I will ask you how long it has existed. A. As I recall the date, since about February of 1930.

Q. And it has been continuous since that time? A. Yes, sir.

Q. What does Radio Station WIBO do in the way of service to the Publix-Balaban & Katz theaters? A. We broadcast news concerning the moving pictures which are being exhibited in the theaters of the Publix-Balaban & Katz group, twice each day. A broadcast of five minutes' duration is put upon the air, informing our listeners of the shows in the theaters of the Publix-Balaban & Katz group, and directing attention of listeners to programs or schedules of the theaters appearing in the columns of the Chi-
cago Evening American, calling attention to news
696 items which appear in the American, and giving original information concerning the type of pictures and entertainment available to the public in the theaters of the Publix-Balaban & Katz group.

Q. Is there any money consideration passing between Nelson Brothers Bond and Mortgage Company and the

Publix-Balaban & Katz Theaters covering these transactions? A. No; there is no money consideration.

Q. In addition to the availability of good talent for radio broadcasts, what other service to the public results from the WIBO-Publix-Balaban & Katz affiliation? A. Since more than 25 million admissions were recorded in this string of theaters last year, I regard it as being something in which the public is greatly interested. Twice each day a brief review is broadcast concerning pictures exhibited in these theaters throughout the city; reference is made to the news printed in the Chicago Evening American concerning them. The arrangement is carried further by an announcement on the screens in the theaters of Publix-Balaban & Katz which invites theater goers to tune in WIBO; and WIBO believes that this exclusive arrangement with the largest group of theaters in Chicago results in a public service of importance to thousands and thousands of people who have indicated their interest by buying over 25 million admission tickets to those theaters during the past year.

Q. What type of talent does Publix-Balaban & Katz furnish for the broadcasting of programs over radio station WIBO? A. Talent which we regard as being
697 a type equal to if not better than any other talent available, such as some of the famous movie stars and other stage actors, singers, and so forth, who appear from time to time in the theaters of the Public-Balaban & Katz group. Many of those stage stars and other performers, when passing through the city of Chicago with a few hours between trains, are invited to broadcast either from the studio in the theaters of the Publix-Balaban & Katz group, or in our own main studio or in the Chicago American studio in the Hearst Building.

Q. What are WIBO's religious broadcasts? A. WIBO broadcasts nine religious programs each week, consisting of ten hours devoted to such broadcasts. This total of nine religious programs amounting to ten hours is being broadcast by WIBO, and it is believed that it is a very liberal treatment of religion by the station.

Q. What further affiliation has WIBO? A. We have an affiliation with the Chicago Evening American.

Q. How many radio stations in Chicago are affiliated with Chicago daily newspapers? A. Five radio stations

in Chicago are affiliated with the principal newspapers of the city, out of something like twenty stations, I believe, or more, in the city.

Q. What station is affiliated with the newspaper of largest circulation? A. WGN, affiliated with the Chicago Tribune.

Q. What station is affiliated with the newspaper having the second largest circulation in Chicago? A. WIBO, affiliated with the Chicago Evening American with
698 the largest evening circulation in Chicago and, I believe, the second largest evening circulation in the United States.

Q. What value does WIBO attach to its affiliation with the Chicago Evening American? A. The most important value is the great service rendered to the public by the daily printing of WIBO's schedules and feature news in about 560,000 copies of the Evening American each week, which, according to the Government census estimates of four and a fraction persons per home, means that WIBO news reaches homes containing over two million people every day, supplying them with radio news and information enabling them to select good radio entertainment without trouble or inconvenience.

Q. What is the attitude of WIBO towards broadcasting matters affecting the public? A. WIBO broadcasts events and information of help to aviation, as evidenced by the liberal allotment of time devoted to the air races when they were held in Chicago; and other events of similar character.

Q. With reference to aviation, what is the service rendered by WIBO? A. We have broadcast for a long time, a year or more, I would say offhand, a report of weather and flying conditions each evening, taken from the telegraphic tickertype on a machine, originating, I be-
699 lieve, with the Government sources of information, giving weather and flying conditions, such information as is ordinarily contained in these Government forecasts concerning weather and flying conditions; and we have on frequent occasions heard from pilots flying the mails at night telling us that they tuned in with their instruments and heard the WIBO broadcast.

We broadcast the national air races at the time of their occurrence last year, in a very complete and thorough

fashion, and largely signing off of other broadcasting activities for a large part of the afternoon during the course of those air races, because we believe that the public was intensely interested in the air races and that we might be instrumental in serving our listeners, the public in general, and aviation in particular by broadcasting as much as could be done of that activity.

At different times we have broadcast such events as the Coste landing; the activities in which Miss Eleanor Smith, one of the famous aviatrixes, was concerned.

The National Broadcasting Company feature in which the Lindbergh exploit was broadcast, I believe, by a united hook-up of all the chain stations. We have also broadcast directly from our studios such men as Mr. Edward B. Heath, who was recently killed in an aviation accident, one of the pioneers of aviation; and numerous aviators or persons interested in aviation who have appeared in our studios. Some of the most famous aviators of the world have talked over WIBO.

Q. What outstanding educational activities does WIBO carry on? A. In conjunction with the Chicago
700 Association of Commerce and the city school system of Chicago, WIBO is now aiding in the Cleanup-Paint up-Plant up activities of the city schools. WIBO is devoting several periods each week to addresses by various prominent persons selected by the Association of Commerce and the schools for the purpose of encouraging school children and others in greater civic pride; and each school is conducting an essay contest, the prize winners of which will be heard over WIBO at the close of the contest later in the season.

Furthermore, each week WIBO broadcasts the address of Mr. David Jackson, head of the Securities department of the State of Illinois, informing and educating the public in the safe handling of funds.

WIBO also broadcasts a daily 15 minute period of health and physical education, in addition to numerous other broadcasts, such as the quarter hour period each morning on cooking, home economics, home decoration, and so forth, about which I believe Mr. Clark of the Evening American has already testified.

Q. Have you refused accounts for any reason? A. Yes, sir; we have refused accounts in the past.

Q. What do you demand with reference to advertising over your station? Why have you refused accounts? A. Because of various reasons, including previous allotment of time, undesirability of program, the desire to maintain the highest standard of service to listeners; because of the subject matter of the account, in our judgment, being objectionable to the listeners, and not in the public
701 interest, and other reasons which seemed good and sufficient to us.

Q. I will ask you, Mr. Macpherson, to discuss in some detail the types of programs that WIBO is broadcasting from its radio station. A. Obviously it will be rather difficult for myself or any one to attempt to discuss in complete detail something like 5,000 separate entries of material broadcast which are recorded in these transcripts which have just been filed with the Commission; so I will take this book and discuss from the headlines our programs or entertainment which has been broadcast in the past.

We have broadcast addresses of the President, as indicated in this headline, stating "Hoover and Byrd Heard on WIBO Tonight."

Other programs featured by national figures, such as is indicated in headlines that I see here, mentioning Al Smith, Senator Tydings, Senator James Hamilton Lewis, Ambassador Dawes, being heard across the sea; address by Wilkins on Antarctic Perils; Catholic Hour and Dr. Fosdick heard on WIBO Sunday; Mrs. McCormick on WIBO; Preelection Talks on WIBO; Hoover at the Mike for the 27th Time; D. A. R. Speaker Urges Defense—and other programs of general, political and religious importance to various grades, classes and types of people.

On the following page are headlines concerning
702 broadcasts of the air races which we were discussing a few moments ago. Also pictures showing the airplane which WIBO was instrumental in having fly over Chicago to stimulate interest in such things; the broadcasting of a sound picture, which I was told by the officials of the Publix-Balaban & Katz Theater was the first time that a broadcast of music from a film had been put upon the air. We broadcast the R. K. O. bill from the Leviathan. World's first audition, Tannheuser, on WIBO. And on the following page we find operatic broadcasting——

Mrs. Willebrandt: Just a minute, if the Examiner please. This document that the witness is reading from is already in the record. I would object to the reading of the document already in the record as a reply to the question asked. This witness was asked to discuss the programs. He has now gone through two pages and is reading headlines from the Hearst paper; and I object to the reply because it is *it* not responsive to the question.

Chief Examiner Yost: The Examiner can see no particular objections to the witness discussing the events as announced in the exhibit; but he certainly is expected to do something additional in explanation, or something that will be helpful in the way of giving the Examiner a better understanding of the complete character of the programs broadcast. Certainly the answer should not be limited and restricted to the exhibit from which he is reading.

The Witness: If I may discuss each of these items
703 I will be able to perhaps give a better idea of the policy of WIBO which caused such of these broadcasts as are selected for discussion to be put upon the air.

Chief Examiner Yost: The witness may proceed.

The Witness: The first regular broadcasts of operatic performances from the stage of the Chicago Civic Opera Company were put upon the air over WIBO in the season of 1929-1930, exclusively, to the listeners of the Chicago area, over WIBO, through the National Broadcasting Company's Saturday evening performances. During the course of those broadcasts during the seasons of 1929 and 1930, and 1930-1931, some of the most famous figures of the operatic world were broadcast to our listeners, such as Mary McCormick, Madame Jeritza, and various other celebrities of the operatic world.

In addition, WIBO has endeavored to provide programs of high class symphonic music, as is indicated by the broadcasts of Damrosch and Granger and other famous musical leaders and celebrities.

I presume it is needless to discuss in detail all of those, as that will indicate our policy to provide entertainment of the very highest quality in so far as we are able to judge, in our broadcasts to our listeners.

We endeavor to further carry out our policy with rela-

tion to diversified programs by frequent broadcasts
704 of music of other types and characters, as is indicated by our very elaborate presentation of dance bands, dance music, by orchestras such as Victor Young, Castle and others of such caliber.

We also put on such programs as the broadcast of the Mormon Tabernacle from Salt Lake City, over the National Broadcasting Company chain; and we endeavor to inject into our programs diversity of a high class, in that manner at frequent intervals—hymns and popular music, operatic music, symphonic music and music of all types which we feel will appeal to listeners of all types and classes.

We also broadcast a variety of other types of programs, consisting of such things as our Swedish programs, a religious broadcast every Sunday morning which has been a feature of WIBO for many years, practically since the inception of the station.

We have practically every major type of activity represented among the broadcasts which will be found recorded in the program log of WIBO, including religion, drama, politics, opera——

Chief Examiner Yost: The hours previously mentioned by the witness with reference to religious broadcasts—do those include the broadcasting of WPCC over your station?

The Witness: No, sir. Those were not included in that. In addition to the hours mentioned, programs by Rev. O'Hair or some of his people are broadcast between the hours of 12 and 12:30 daily and, I believe, three evenings each week.

Chief Examiner Yost: But they are not included in your statement?

705 The Witness: No, sir; they were not included. With the addition of those hours, I believe our total hours of religious programs would be about 14½ hours per week, if they should be so included.

We have broadcast dramatic playlets. I presume that I may elaborate in my statement. The First Nighter originated in the studios of WIBO by Mr. Charles Hughes, the producer, and was put upon the air, first, over WIBO. It became so popular or so appealing to listeners and to advertisers, that it was sponsored by an advertiser who put it upon the National Broadcasting Company's chain within,

I believe, a period of about three months from the time it was first put on the air; which I am told is the record in speed for developing a program of that character and reaching chain broadcasting worthiness.

Another activity of WIBO has been to encourage interest in music. For some time—I believe it is now discontinued because of the season of the year—we carried the Walter Damrosch Musical Appreciation series over the National Broadcasting Company chain. Last year we conducted a song contest in which some 1,600 young singers were interested. I may say that that was conducted in connection with a commercial program. Nevertheless, it did encourage and stimulate a great deal of interest in the younger singers who had not had an opportunity to be tried out for real singing and who had not had an opportunity to be broadcast; and during the course of this contest we did put upon the air many singers of worth and decided talent.

By Mr. Boyd:

Q. Who was the sponsor of that program? A.
706-711 The Atwater Kent organization of Chicago, the Sampson Electric Company.

712 Q. Will you continue with your testimony with regard to the type of programs broastcast? A. In pursuance of WIBO's policy to provide entertainment for all classes, ages, creeds and beliefs, as nearly as we possibly can do so in a practicable manner, we try to inject diversity into our programs, having operatic and the higher types of music, popular music, music of different religious creeds, dance music, and a varied collection of dance orchestra pickups from remote control points, in addition to the entertainment which we provide through our own orchestra and the artists and entertainers who are broadcast from our main studio. Those programs include stage and screen stars, and they are particularly interesting where they are broadcasting such theatre artists as Mitzi Green, Jack Oakie, and other famous theatrical and moving picture personages.

We have a weekly feature broadcast from the Chicago Theatre Studio, and have broadcast that program for more than a year, the greater part of that time under the
713 direction of Mr. H. Leopold Spitalny, director of the Chicago Theatre Symphony Orchestra—I mean the

presentation of the program over the radio. The presentation of the music of that orchestra was under the direction of Mr. Spitalny.

The names of ten persons are selected each day at random from the telephone directory, the city directory, station mail and news items in the Chicago Evening American, and announced over the air. To each of those persons guest tickets to the theatres are presented if they telephone in and verify their names and addresses. An announcement on the screens of the Balaban and Katz Theatres between feature films, in rotation around their string of theatres on the South Side, the West Side, the North Side, and the Loop, appears at scheduled intervals announcing the fact that patrons of those theatres, by tuning in to WIBO, may hear themselves invited as guests to the theatre. I believe Mr. Clark testified to that effect the other day, so it will not, perhaps, be necessary for me to dwell upon that, to make clear the point that we are trying to do three things: To provide the listeners with news or information concerning entertainments in the theatre; to attract the attention of listeners to the shows being presented in those theatres; and to attract the attention of listeners to the news and information in the Chicago Evening American concerning the moving picture theatres and their presentations of shows, and so forth, believing that by this arrangement we are serving the public of Chicago and suburbs, and basing our belief upon the fact that more than 25,000,000 admissions to these theatres would indicate a wide and general public interest in the news, entertainment
714 and information we broadcast concerning those activities.

Then, in our sports broadcasts we try to cover the field of sports activities very thoroughly. At the present time we are broadcasting the baseball games. During the football season we handled the broadcasting of the Northwestern University games throughout the season. In addition to that we broadcast, I believe, the Notre Dame-Army games. We broadcast the cup races in connection with yachting, when Sir Thomas Lipton and his people were endeavoring to take America's cup through the National Broadcasting Company chain broadcasts.

We broadcast wrestling, hockey, and other sporting activities very liberally, many of them sponsored, but some of

them without any financial compensation to us—not that I feel that there is anything reprehensible about receiving financial compensation, but we provide entertainment at times without compensation, and at expense to ourselves, because we want to make our broacasts as interesting as they can be to the listening public. We believe that it is not only good public service, but good business to do so. We think our station is more desirable from a listening standpoint and more desirable, therefore, to advertisers, when we provide a thorough schedule of entertaining information of this character. WIBO has broadcast some television programs. This was a combination of——

Q. Let me interrupt you to make this clear. Does WIBO operate in conjunction with Television Station W9XAO- A. Yes, sir.

715 Q. Does Radio Station WIBO, at certain times during the day or evening, broadcast the sound from the same studio from which W9XAO broadcasts the image of the performance? A. Yes, sir, it does.

Q. In that connection do you have a special studio for the broadcasting of television, sound and pictures? A. Yes, there is a special studio for that purpose. WIBO broadcasts a combination television and sound program in conjunction with W9XAO several times per week. It is a daily procedure. Sometimes there are more programs broadcast in one day than on other days, but each day something is broadcast in connection with television.

Q. What is the fact with reference to WIBO assisting in the preparation of programs for experimental purposes, being broadcast under an experimental license by W9XAO, in furtherance of the art of television? A. We assist in the preparation of such programs. We have in the past brought special talent in. On occasion I believe some of the moving picture people have appeared in the television broadcasts. I believe that recently Tom Mix and his famous horse were on the television program broadcast in conjunction with W9XAO.

Q. Has Radio Station WIBO been actively participating in the experiments which have been conducted by the Western Television Corporation, owners of W9XAO, and its predecessors, in the experimental field of television? A. Yes, sir.

Q. Do you also broadcast, at certain periods of the
716 day, phonograph records? A. Yes, sir.

Q. I will ask you to state, if you can, about the average time that is devoted to the playing of phonograph records, and the broadcasting of that music, or whatever is contained on the record. A. That time will vary somewhat, but it is confined to morning broadcasts, and usually is from an hour and a half to two hours of the total hours in the morning broadcast. There may be occasions when it is slightly more than that or slightly less than that.

Q. I will ask you to refer to WIBO's Exhibit 10-A. I ask you to take one day's program, and tell us the time devoted on that date—you can take any date—to the broadcasting of records, describing the programs. A. I suppose any date is all right. Take the first week day shown here, Monday, February 2.

Q. Start with the first program on the air in the morning broadcast, and describe that. A. At 6:25 a. m., Uncle John. That is a program by John Meredith, of early morning worship.

Q. That is not a recorded program? A. No, sir, that is not a recorded program. That runs from 6:25 to 7:30. From 7:30 to 7:45 there is a 15-minute program, listed as a "Forget-Me-Not" Program, which is a program of recordings. From 7:45 to 8 o'clock there is a National Broadcasting Chain program of 15 minutes, which is a sponsored program. From 8 to 8:30 there is the Bulova Time program of recordings. From 8:30 to 8:45 there is a National Broad-
717 casting Company sponsored program. From 8:45 to 9 o'clock there is another 15-minute National Broadcasting Company program. From 9 to 9:15 there is a National Broadcasting Company program, not a commercial program.

Q. You mean by that, the National Broadcasting Company is paid for the right to broadcast that program? A. It is known as a sustaining program.

Q. They pay the National Broadcasting Company for the privilege? A. Yes. I believe that is paid for. From 9:15 to 9:44 is the Reading Room Period, during the course of which one of our announcers reads books or chapters from books. He does not always complete the reading of a book within the period, and then it goes over until the next day.

At 9:44 there is the Curtis Candy announcement, for which

we are paid. From 9:45 to 10 o'clock there is a recorded program for which we are paid. At 10 o'clock there is the Bulova Time announcement. From 10:01 to 10:30 there is a 30-minute period of recordings, which is a sponsored program. From 10:30 to 10:45, there are news flashes of early morning news from the Chicago Evening American Studio.

From 10:45 to 11 there is a program known as Around the Home, from the studios of the Chicago Evening American, by one of their home economics, decoration, or other household experts.

From 11 to 11:30 there is a recorded program of music.

From 11:30 to 11:45 there is a musical recorded program.

From 11:45 to 11:58 there is a recorded musical program.

At 11:58 there is a Curtis Candy announcement.

718 At 11:59 there is a Bulova announcement. At 12 noon, or from 12 noon to 12:30, Radio Station WPCC uses that half hour period over our transmitter for the broadcasting of the North Shore Church.

Q. How much phonograph broadcasting did you have during that period, as you described? A. About 2½ hours.

By Chief Examiner Yost:

Q. As the Examiner understands, there are no records broadcast in the afternoon or evening. A. That is correct.

By Mr. Boyd:

Q. Is the station requested from time to time to accept recorded programs for broadcasting in the afternoon, and before midnight? A. Very frequently.

Q. The station refuses to accept such accounts? A. Yes, sir.

Q. I hand you a paper which has been marked WIBO Exhibit 12-A for identification, and ask you to explain what that document is. A. It is a list of the National Broadcasting Chain programs on WIBO for the week ending February 21, 1931.

Mrs. Willebrandt: Just for the one week of February 21, the week prior to the time of the setting of this hearing?

719 Mr. Boyd: That is all this says, yes.

By Mr. Boyd:

Q. Is it a true and correct copy of what it purports to be? Is the information contained therein true and correct, to the best of your knowledge and belief? A. Yes, sir.

Q. Does that represent the programs broadcast over Radio Station WIBO for that week? A. Yes, sir.

Mr. Boyd: I now offer WIBO Exhibit No. 12-A.

Chief Examiner Yost: It may be admitted.

(The paper referred to, list of National Broadcasting Company chain programs broadcast over WIBO for week ending February 21, 1931, was marked "WIBO Exhibit No. 12-A", and two copies thereof are on file with the Commission.)

By Mr. Boyd:

Q. How many programs were broadcast during that week originating with the National Broadcasting Company? A. 74 programs.

Q. Will you refer to the document marked WIBO Exhibit 13-A for identification, and indicate to me what it is? A. It is a booklet which we prepared to present some examples of service rendered by WIBO to the listeners of Chicago in conjunction with the Chicago Evening American, and to present the condensed information about what we claim with relation to our broadcasting activities, and other information that might be pertinent.

720 Q. In connection with this booklet, have photostats of the headlines all been introduced in a previous exhibit? A. Yes.

Q. In identical form? A. Yes.

Q. In the center of the book you will find a map. I will ask you what that map is, and the purpose of it. A. It is a map of the area immediately adjacent to Chicago—I should say within a 100-mile circle, and a smaller 50-mile circle. from State and Madison Streets, showing the principal towns lying within those circles, and the population as given in the 1930 census.

Q. Was that map prepared by you or under your direction, from information which you procured from the census figures? A. Yes, sir. It was prepared under my direction. We had the outline map prepared, and had to wait some

time to get correct figures from the Census Bureau in order that we might have it as accurate as possible.

Q. Is it a true and correct copy of what it purports to be? A. Yes, sir.

Q. I will ask you what towns and cities appear upon that map, with reference to class. A. The population is shown typed beneath the name of the town, in cases where the population is 1000 people or more.

Mr. Boyd: We now offer the middle portion of this booklet, or the exact center of it, the two pages, and the information contained thereon, as WIBO Exhibit 13-A.

721 By Mrs. Willebrandt:

Q. What are these circles drawn from? What were these circles on this map to which you have just referred drawn from? A. I don't think I understand the question.

Q. I will reframe the question. Is this based upon any map of the areas in question? A. We had the map prepared by a map company in Chicago—Wild, I believe.

Q. You did not use any standard map? A. They are people who make maps.

Q. Where was the center of these circles which, according to the legend, appear to refer to your service area? Was that the location of your transmitter, or where was it? A. The center of the circle on the map was placed, by instructions, as State and Madison Streets, Chicago, which is commonly regarded in Chicago as the point from which the numbering of the streets begins, east and west and north and south.

Q. Is that where your transmitter is? A. It is not.

722 Q. Where is your transmitter with reference to that point? A. The circles on the map, I may say, did not have direct relation to our transmitter.

Q. According to the legend on the map, they are claimed service areas, are they not? A. I presume I may ask a question. What do you mean by the legend on the map? There is no legend on the map concerning the service area.

Q. "This circle contains more buying power that is embraced in any one of 46 entire states." By buying power do you mean the area that your station serves? A. I mean that that circle is computed to contain more buying power than any one of 46 states. It states clearly.

Q. It says "Dominant coverage within this golden circle is insured to advertisers on WIBO." A. It should be.

Q. Then, the golden circle refers to the area WIBO serves, does it not? A. It does not so state in our booklets here.

By Mrs. Willebrandt:

Q. You are identifying the document. What is
723 your opinion of it? A. If I may be permitted to give an opinion, I will state that WIBO does, in my opinion, serve that area indicated on that map.

Q. That was the intention in getting out this document, to lead anybody who reads the document, and who sees it, to believe that, was it not? A. If I am being asked to state the intention in getting out the document, I would like to ask permission to state our intention in getting out the document.

Q. Was that one of the intentions? A. It was the intention, in getting out the document, to convey the information which the documents contains to anyone interested in WIBO.

Q. This is an advertising circular? A. The purpose of it is informative, to give information about WIBO.

Q. For the purpose of soliciting advertisements over your station? A. That is the principal use to which it is put.

Q. When was this prepared? A. Some time after the first of this year.

Q. What time was it with relation to when you hooked
up with the Chicago Evening American? A. More
724 than a year following that.

By Mrs. Willebrandt:

Q. Was it published by the Chicago Evening American? A. It was not.

Q. What use have you made of it? A. We use it to explain facts concerning WIBO. I might read from it, as an illustration:

"WIBO makes no strained effort to claim improbability. Numerous letters indicate many listeners outside of this circle—in fact, letters come from Cuba, as well as Canadian listeners, but in these days of chain programs available everywhere no station can justly claim many habitual

listeners outside of its metropolitan area. Within this circle WIBO offers dominant coverage."

Q. How freely have you distributed the document? A. I believe there have been some 500 of these booklets prepared.

Q. To whom have you sent them? A. We delivered most of them in person.

Q. To whom? A. To potential advertisers, advertising agencies, and to other persons who requested information about the station.

725 (The document referred to, advertising pamphlet of WIBO, was marked "WIBO Exhibit 13-A," only one copy thereof being furnished to the reporter.)

By Mr. Boyd:

Q. In connection with your duties other than as assistant general manager, do you have direct charge of the sales organization of Radio Station WIBO? A. I do.

Q. I will ask you to indicate to the Examiner the number of salesmen who are under your direction who devote their time exclusively to the sale of the facilities offered by Radio Station WIBO. A. The number varies from time to time. There are at the present time four men in addition to myself whose time is devoted to the sales activities, and two men who devote part of their time to it.

Q. In the handling of your sales affairs, and in the supervision of the sales of this company, have you prepared, and do you prepare for potential advertisers, a prospectus if the account justifies it, covering the service offered, which you claim to be able to render to the advertiser? A. Yes, sir. We prepare a prospectus giving a presentation of facts and information about WIBO, and the way in which we believe radio advertising may be used advantageously by the potential advertisers.

Q. I hand you a pamphlet, which has been marked WIBO Exhibit No. 14-A for identification, and ask you if that is a pamphlet such as you have just described.

726-730 A. Yes, sir. That is the presentation.

Q. Was this pamphlet prepared under your supervision and direction? A. It was.

Q. For what purpose was this pamphlet prepared? A. In order to sell a radio advertising plan to the Ford dealers of Cook County.

Q. In the city of Chicago? A. Yes.

Q. Was it used for that purpose? A. Yes, sir.

Mr. Boyd: I now offer WIBO Exhibit 14-A for the purpose of showing the ability of Radio Station WIBO to perform the service, and to perform it advantageously and profitably.

Mrs. Willebrandt: I object to this. It is improper.

731 Chief Examiner Yost: The objection is sustained. In the Examiner's opinion it had better not go in.

Mr. Boyd: It is agreed between counsel that WIBO Exhibit 15-A, consisting of a group of photographs, may later be examined by the witness, and a description of each photograph placed on the back thereof, showing what each photograph purports to represent. It is agreed that that may be done later by the witness.

Chief Examiner Yost: They may be admitted.

(A group of photographs was marked collectively "WIBO Exhibits No. 15-A," and two copies of each are on file with the Commission.)

Cross-examination on behalf of the applicant.

By Mrs. Willebrandt:

Q. You have been the manager of this station since November 1929? A. I have been connected with Mr. Nelson in the management of the station since that time.

732 Q. Have you a receiving set in your home? A. Yes, a Philco set.

Q. Where do you live? A. In Homewood.

Q. Where is that with reference to your transmitter? A. I should say a little over 40 miles, air line, south and a little east—southeastwardly.

Q. In other words, you are in South Chicago? A. No. I am south of the city of Chicago.

Q. Are you nearer to the city of Gary or the central portion of the city of Chicago? A. A little bit nearer Gary—considerably nearer Gary, I should say.

Q. How far are you from Gary? A. In the neighborhood of 22 to 25 miles air line, I should say.

Q. What stations do you listen to in your home? A. Various stations.

Q. You listen to Station WIBO a lot, do you not? A. Yes.

Q. What kind of reception do you get from WIBO? A. Very good.

Q. Do you get any interference at all? A. Occasionally. My set is not a testing set.

Q. You occasionally get interference? A. Yes.

733 We have sputtering when we have an electrical storm, or something of that sort.

Q. I am talking about interference from any other stations, in the nature of heterodyne or cross-talk. A. I am not an engineer.

Q. Do you ever hear any cross-talk when you are listening to your station? A. I have heard it very faintly sometimes.

Q. Did you say anything about that in your prospectus to your advertisers within this "Golden Circle"? A. We were not trying to conceal the facts. When we are asked the question——

Q. How large is your golden circle that you take in, and with respect to which you say that dominant coverage is insured to advertisers within this golden circle? A. The circle on the map is a circle of 100 miles radius.

Q. One hundred miles radius; and you live 40 miles from the transmitter? A. Yes.

Q. Outside of bad weather, you do not get any interference, do you? A. The reception which I get is entirely satisfactory to me. I am not engineer enough to define the term "interference".

Q. I just want what you get. A. I get very good reception, indeed. It is perfectly satisfactory to me.

734 Q. I am just trying to find out what kind of reception, indeed. It is perfectly satisfactory to me.

Q. It is not only engineers who listen to a radio set. It is the public, like you and me. Do you listen to WJKS? A. I have listened to WJKS; not a great deal.

Q. How often do you listen to WJKS? A. I would not attempt to make any estimate; very, very seldom, indeed. I have listened to it a very few times.

Q. When you did listen to it what kind of reception did you get? A. I don't particularly recall.

By Chief Examiner Yost:

Q. Do you remember when you listened to it? Have you listened to it in the last six months or a year? A. I listened some time within the past month, I would say, Mr. Examiner.

By Mrs. Willebrandt:

Q. What did you hear? A. I don't recall the type of program I heard, even.

Q. What kind of reception did you get when you did listen to it, last month? A. I heard the station, and I heard whatever they had on the air at the time, and listened to it until I was content to turn the dial to some other station. I had no particular purpose in listening.

Q. I think you said that you have health programs
735 on your station. A. I am sure we have had.

Q. What kind of health programs? In other words, I do not want a technical reply. I want just your best estimate of it. A. Here is an example of some of the kinds of programs that we have at different times.

Q. Health programs? A. I presume you woud define those as health programs. This is captioned "Infant Welfare Work."

Q. What did you broadcast about your Infant Welfare Work? A. "Infant Welfare Work, to which this week has been officially devoted, will be the subject of a radio address given tomorrow at 12:30 p. m. by Dr. Hayworth M. Sanford, Medical Director of the Infant Welfare Society, over WIBO. Baby week will continue until Saturday for the purpose of impressing upon parents the most modern methods in child health and education."

Q. How much time did you give to that? A. I don't know what the exact time was.

Q. You just read a newspaper article about it? A. I can probably read the exact time.

Q. All right. A. 12:30 p. m. Presumably it would be a 15-minute period or a half hour address.

Mrs. Willebrandt: Mr. Reporter, will you turn
736 back and read what the witness testified as to a daily health program?

The Witness: As I recall what you have reference to——

By Mrs. Willebrandt:

Q. Give your best recollection of it. Let me ask you this. Are you in charge of these programs? A. In charge of the general operation of the station, including programs, in conjunction with Mr. Nelson.

Q. Do you know the programs that are passing out over your station, and the general allotment of type and kind of program? A. In general, yes.

Q. What daily allotment of health programs do you give? A. At the present time there is a program being broadcast just before noon, a 15-minute program of health and exercises, which can be located if you will refer to the log which is in evidence here, of April—

Q. On February 4; I have it here before me. Which one do you refer to? A. It does not appear in that particular list.

Q. You spoke of it as a daily program. How long has that been going on as a daily health program? A. The program logs here would indicate that. I would not be prepared to state exactly.

Q. Is it an innovation on your station? A. We have had different programs at different times. This program started some weeks back. I do not recall the exact time.

We have been planning and discussing the starting
737 of another for some time.

Q. It did not start as a daily program until recently, then? A. The last few weeks.

Q. Are you familiar with the Restoro program, which appears here on your program sheets? What is that? A. That was a sponsored program.

Q. What type of broadcast is it? A. As I recall it, it had to do with some electrical, vibrational, or massaging, or X-ray—not X-ray, but electrical ray treatment of some kind.

Q. Has it been in any difficulty recently with respect to using the mails to defraud? A. I don't know.

Q. Are you still broadcasting it? A. No.

Q. The Restoro program? A. We are not.

Q. When did you stop? A. I would not undertake to state.

Q. I do not mean exactly. Was it long ago, or recently? A. There were only a very small number of the programs

broadcast over our station. We did not care to have that type of program.

Q. Did you refer to it when you spoke of the daily health program? A. No, I did not. That is commercial.

Q. How about this Varicose Veins program?
738 Was that one of our daily health programs? A. That was an announcement referring to an advertisement in the Chicago Evening American, made available to all advertisers in the Chicago Evening American, on our rate card, purchased by them.

Q. The Varicose Veins program was an advertisement that appeared in the Chicago Evening American, and pursuant to your arrangement with the American you broadcast the same material over your station, is that right? A. Not all the material published in the American.

Q. Part of the material? A. The advertiser in the American comes to us and buys an announcement referring to the advertisement.

Q. Did you make any investigation yourself, for the radio station, with respect to the reliability of that Varicose Veins program? A. We assumed that the institution was a reliable one, since its advertisement was printed in the Chicago Evening American. I won't be positive about this, but I believe we did call up the Chicago Evening American and asked them, or they called us and asked concerning the announcement, if the advertiser could buy an announcement in connection with his advertisement in the Evening American.

Q. Your "American Conservation of Vision"—is not that a group of doctors' advertisements? A. A doctor by the name of Hawkins, I believe.

Q, Has he or has he not been under attack by the American Medical Association? A. I don't know.

739 Q. Does that also come to you from the Chicago Evening American? A. They ran an advertisment in the Chicago Evening American.

Q. I notice this American Conservation of Vision runs through a good many of your programs, At all times it came to you through your arrangement with the Chicago Evening American? A. They ran advertisements in the Chicago Evening American. They do not sell time on WIBO, and we do not sell advertising in the Chicago Evening American, but we publish a joint rate card. I say we

publish a joint rate card. WIBO publishes a rate card on which joint rates are shown; that is to say, announcements are sold to advertisers in the Chicago Evening American, and a lower rate is made on program periods—I mean by that, 15-minute, 30-minute, or longer periods of time to advertisers in the Chicago Evening American. It is published for the information of everybody.

Q. Who paid you for that Conservation of Vision program, the people who were advertising or the Chicago Evening American? A. They were billed for the program.

Q. Through the Chicago Evening American? A. No; they were billed directly for the program.

Q. Did you make any check of the reliability of that advertiser? A. We made inquiry.

Q. Of whom? A. I don't recall where we made our inquiry.

740 Q. I notice on quite a few of these programs—and I am now referring to February 4, 1931, as fairly indicative, as far as I have been able to check them—you have about four periods here when you broadcast something that you have just marked "Television." Is there any reference in those broadcast to television stock? A. None to my knowledge.

Q. Do you know whether there is any television stock for sale? A. I do not know of my own knowledge anything about the Television Company's own financial operations.

Q. Television stock is a part of the capital assets of your radio station, is it not? A. I believe some stock does show. I am not familiar with the financial end of the business, and the details, as Mr. Nelson is.

Q. Do you know anything about the worth of that stock? A. Do I know anything about it? It would be speculation on my part. I could not make any statement concerning the worth. It would be speculation on my part to make any speculation concerning the worth of the stock.

Q. You broadcast National Broadcasting Company programs, do you not? A. Yes.

Q. You know that WENR-WLS is a 50 kilowatt full-time clear channel station under lease by the National Broadcasting Company, and that they carry NBC programs? A. I have heard it stated. It is generally known, I believe, that that is true.

741 Q. Will you state whether your service area covers any area of Chicago that they could not reach? A. I would not undertake to say whether or not there is an area that they could not reach in the city. I presume that they would cover that whole circle. I do not know, as an engineer.

Q. You know that KYW, a 10-kilowatt full-time clear channel station, owned by the Westinghouse Company, carries NBC programs too? A. Yes, sir.

Q. Can you give any better service than they can? A. I think we do.

Q. A wider service than that 10-kilowatt station? A. I hear WIBO better in my home than I hear KYW.

Q. What is the frequency of KYW? A. I don't recall their wave. I know I pick it up on my dial.

Q. But you say you hear your station better in your home than you do that station? A. Much more satisfactory to me than KYW.

Q. Satisfactory as to program or as to signal strength that comes in to you? A. As to the manner in which I hear the program. There is no interference. There is an almost total absence of interference on ours, and considerable interference on KYW. I say interference in the sense of an interruption of the pleasure of listening to the program. I don't know whether that is a correct technical term or not.

742 Q. You live twenty miles from Gary? A. Twenty-two to 25, air line, I should say.

Q. If the Federal Radio Commission were to concel your license, would you state that the N. B. C. programs that you broadcast could not be broadcast over four other stations in Chicago? A. I am not sufficiently informed as to the status of their contractual relations.

Q. No; that would be an unfair question. I did not mean that. I mean, assuming that they could make contracts with the other stations, would there be anything in your area that those other four stations could not reach? A. That is an assumption—my answer would be an assumption, rather. I presume or assume that they could reach the territory that the signals from our station now reach. Whether or not the programs would be received as satisfactorily by the listener is something else. I do not know.

Q. I am just talking about the area. You have all of

Gary, practically, in your golden circle here (indicating) with the advertisers that you can reach with dominant coverage, have you not? A. I think it is all there. Every bit of Gary is included in that circle.

Q. So you now reach all of Gary? A. We get letters from far beyond Gary, and we get many letters from Gary. As stated, numerous letters indicate many listeners outside of the circle, and many others indicate listeners all within the circle thoroughly covered.

743 Chief Examiner Yost: Are you able to say, as a matter of fact, whether any of the National Broadcasting chain programs broadcast by you, or any or all of them are broadcast by any other station in Chicago?

The Witness: I do not believe, Mr. Examiner, that any of the programs now broadcast by us are broadcast by other stations at the present time.

Mrs. Willebrandt: You were referring to the same time?

Chief Examiner Yost: I was referring to particular programs. The Examiner just wanted to know for his own information.

By Mrs. Willebrandt:

Q. How many other stations in Chicago broadcast the air races and Lipton cup races and so forth? A. None as thoroughly as WIBO.

Q. Others did broadcast them? A. They broadcast items from the air races.

Q. The copies of your program logs that you have introduced do not show, so far as I have been able to see, the individual announcements, commercial announcements? A. Yes, ma'am; they show.

Q. They seem to just show the announcement period. Will you point out individual announcements, for instance? A. I have one of a more recent date I would be more nearly familiar with. Here is April, if I may select it.

Q. Let us go back to February 3. A. Would it not be just as satisfactory, where I may remember more
744 clearly a more recent date?

Q. That is right at the time of this hearing. Let us go back to February 3.

Chief Examiner Yost: If you can remember what they are.

Mrs. Willebrandt: That is only two months ago. Point out the advertising announcements throughout that day.

A. We did not make any there——

Q. Take Uncle John, for instance: was there any advertising announcement during that hour at 6 o'clock in the morning? A. None to my knowledge.

Q. Would you ordinarily be on duty at that hour? A. No, indeed. I would like to interject a comment, if I may.

Q. Surely. A. I understand you are trying to get at facts?

Q. Right. A. I do not make any pretext of having listened to all these broadcast hours listed in the logs, myself, the whole time. That would be a human impossibility.

Q. All right. Let me get at it in another way. What is your knowledge of the amount of advertising broadcast that appears throughout the run of these programs that you have introduced here? Do you have any personal knowledge of it? A. The program log, or a copy of the program log each day is laid on my desk. I take the program log and examine the items that are on it.

Q. What do you check it with? A. With such
745 data and information as may be in our files, such items as I remember of my own knowledge, and——

Q. When do you check it? Before the program is on, or afterward? A. As a general rule, the program log for the current day is prepared the day before; at least the morning of the following day, and it reaches my desk in the afternoon of the day before, if not the entire program for the following day, and I examine that program from time to time to see that all programs which we are obligated to broadcast or which we desire to have broadcast—the announcements which are on our schedule are listed therein so that the radio station will be properly advised——

Q. Do you or do you not know day by day, and do you have any present recollection, how many advertising announcements were made during these days that you have introduced programs for? A. I know what our orders to our people are, our instructions to our people in that connection, and I know what the people we pay salaries to are instructed to do in that connection, and I believe that they do those things. Otherwise they would be discharged if we discovered that they did not follow out their instructions. They are instructed to list in the program log each

day all programs broadcast, all announcements broadcast, all broadcasting of any information of any kind or character, and the operators are instructed to initial their copy of the program log indicating the time at which such programs or announcements or other broadcasts occur.

746 Copies of our announcements in our studios are kept in our files with the initials of the announcers appearing thereon, with the time at which such announcements and programs were broadcast.

Q. Is this a true copy of your log? A. It is a true copy of our log to the best of my knowledge and belief.

Q. Where are the initials? A. They were not instructed to copy all of the initials.

Q. Then it is not a true copy of your log. A. It is a true copy of the information contained in the log.

Q. I want to find out whether you know or do not know whether there was any commercial broadcasting, or spot announcements on any of these days, that do not appear on your sheets that have been produced here. A. I don't believe there are any of that sort.

Q. Do you know whether there were any?

Mr. Cook: I object to that question on cross examination.

Mrs. Willebrandt: If he says he does not know, it is all right. I am just trying to get at this witness' knowledge.

Chief Examiner Yost: He may state whether or not he knows. If he does not know he can say so. If it is within his knowledge he can say so, and if he has forgotten he can say so.

747 The Witness: If I were permitted to take a later program log I could perhaps answer that question more accurately. I do not recall this particular day, and therefore I cannot answer that question.

By Mrs. Willebrandt:

Q. Did you, when you copied all these pages, check back against the log to see whether you had copied every announcement that went out that day, of any kind or character? A. We instructed the young women who copied these from the program logs to give us a true and exact copy of all programs and announcements listed in the log for that day. We have instructions to our men that they at all times place upon the program log all informa-

tion broadcast; and I believe that they did it and I believe that the girl made a correct copy.

Q. You do take advertising in the form of spot announcements? A. Yes.

Q. How much do you have a day? A. That is something which the transcript of the program log here should show.

Q. I do not see a bit of spot announcements. Show me where there are any. A. There are plenty of them.

Q. All right. A. Curtis Candy Company announcement. That is a very plain there—9:44 to 9:45. Bulova time signal, 10:30, and the next entry is 10:31.

748 Q. Do you get paid for the Bulova time signals? A. Yes.

Q. All right. Go on. A. Here is another Curtis Candy Company announcement at 11:58. Time signals 11:59; Bulova announcement at 1 o'clock; Bulova announcement at 3 o'clock; and the Curtis announcement at 3:06 and the Bulova announcement at 4:59 and a Bulova announcement at 8 o'clock. That would be a five minute program. There is a Bulova announcement at 10 o'clock and there is a Bulova announcement at 12 midnight.

Mr. Cook: How many is that for the whole day?

The Witness: Eleven, for the day.

Mr. Cook: Between 9:44 a. m. and midnight?

The Witness. Yes, sir.

By Mrs. Willebrandt:

Q. You have four television announcements. You do not call them spot announcements? A. That is a program of 29 minutes duration, 4:30 to 4:59. Here is a program of 15 minutes duration, 8:15 to 8:30 (indicating).

Mr. Boyd: Identify it more clearly.

The Witness: From 2 to 2:15 there is a television program of 15 minutes duration in conjunction with W9XAO; from 4:30 to 4:59 a television program in conjunction with W9XAO; from 8:15 to 8:30 in the evening, a 15 minute television program in conjunction with W9XAO.

Q. When you take your eleven spot announcements and add your sponsored programs, how many advertising

749 programs do you have in a day? A. There are quite a good deal. We run the station to sell advertising

to make money, as well as providing entertainment to the public.

Q. I withdraw the question. It would take too much time to make the computation. It appears on the face of the program, does it not? A. Yes.

Q. I will call your attention to the program log that you have introduced for February 9, 1931. From 8:15 in the evening until 8:30 you have the "Giant Finger"—what is that? A. The Giant Finger? That is a program known as the Giant Finger of the Air, a musical program with our orchestra playing musical selections and with announcements referring to news items, feature articles and advertisements that may appear in the Chicago Evening American. They are usually confined to not more than eight announcements referring to both news and advertising.

Q. Then there would be eight more spot announcements appearing in that period to be added to the eleven which you have given. A. No; not in that particular period. At that time there was not any paid announcement on this Giant Finger, of any material importance. Not more than one or two such announcements could have occurred at that time.

Q. What things were advertised in the Giant Finger hour? A. I presume some examples will be sufficient
750 for you, to the best of my knowledge?

Q. All that you can remember, please. A. Well, I recall that an announcement in one Giant Finger program referred to an advertisement of Henry C. Lipton and Company, a clothing store of the highest type in Chicago. I recall that an announcement appeared there referring to a program of Mangel, a high-grade department store in Chicago. I recall an announcement on that program of the Fair; and I might add by way of as complete information as I may put into the evidence here, the fact that we restrict rigidly the announcements on WIBO to advertisers who have sponsored programs on the station or who advertise in the Chicago Evening American.

Q. But they do not pay for that time? A. They do pay for that.

Q. I thought you said that you did not have any paid advertisers in that hour. A. No; I did not say that. We did not have any paid advertisers. If I so stated, it was wholly unintentional, because at this time of the year we

have very few paid advertisers on the Giant Finger program. We have run many of those Giant Finger programs solely as a service to the listener and referring to news items or entertaining features in the Chicago Evening American.

Q. That is really Chicago Evening American time,
751 is it? A. No.

Q. Do the advertisers who get themselves mentioned in the Giant Finger hour pay the same rate as the other advertisers that you have referred to as spot announcements? A. They paid the rate which appears on our rate card, until within the very recent past we have issued a special rate card which we would be glad to introduce, if you like, on the Giant Finger programs exclusively.

I should like to amend my designation of that as a special rate card, to special rates in a folder which was recently issued.

Q. Do you pay the talent at your station? A. No.

Q. Do you have anything to do with it? A. The financial affairs of the station are handled by Mr. Nelson and our bookkeeper and auditor. It is not a part of my normal functions to do that. I do not recall ever having paid any talent there.

Q. Do you know what is paid talent and what is
752 not.

The Witness: As a general rule; yes.

By Mrs. Willebrandt:

Q. Do you know whether all talent is paid at present? Would you have any knowledge of that? A. No great detailed knowledge as to just exactly what the status of such things may be. From time to time a dispute arises in the purchase of talent as in any other thing, and some might be paid and some not. I would not undertake to say.

Q. On Sunday, February 1st, in your program you have White City. Is that a dance marathon? A. I know there was a dance marathon conducted from the White City. I don't know whether it was Sunday, February 1st, or whether it was a broadcast of the band at that time. I don't recall listening to that.

Redirect examination.

By Mr. Boyd:

Q. The announcement that you said was made in connection with the Bulova Watch time—is that a standard announcement of the Bulova Watch Company? A.
753 Yes.

Q. It is usually broadcast by all stations that have the Bulova account? A. Yes.

Q. Is that paid for at the rate on your rate card, or is it a special contract? A. That is a special yearly contract.

Recross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. Excluding the N. B. C. programs and excluding air races and public events of that character, and excluding the Atwater Kent program, what particular type of service or programs running through these that you have introduced would you say was WIBO's contribution to your listening public? A. If we exclude the air races and the public events of that character, I would like to have a further definition of what you mean by "other events." That is rather broad, and I do not want to answer the question unless I clearly understand it exactly.

Q. Other events such as air races and the Lipton cup races and sports, national sport meets. A. We have a great deal of local sports. I would like to refer to this booklet again to recite some of them.

754 Q. No; in this answer I would like you not to refresh your recollection. You have put in your programs. Will you state as the person in charge of the station what stands out in your mind as the peculiar contribution of WIBO, excluding the classes that I have spoken of? If you do not recall any, that is all right. A. One regular contribution every week exclusively over WIBO as a regular contribution to the listening public of Chicago—there appear programs from the Chicago Theater every Wednesday night, 9 to 9:30. Every Thursday, Friday and Saturday evening there is a 15-minute Publix-Balaban & Katz artists program broadcast. At various other times there are special pick-ups, such as Duke Ellington's Band broadcast from the Oriental Theater. Still others, such as Tom Mix

with his pony, I believe, even came up to the studio at our place to put on a broadcast.

There are other events such as school activities at the present time, in which men like Colonel Robert Randolph, president of the Association of Commerce, and the school officials and other prominent personages in Chicago have appeared over WIBO.

Other events include broadcasts of musical periods in the evening, known as the Music Box. Every evening our ten-piece orchestra puts on a program of beautiful selections.

Other events would include a sketch or dialogue with three young women, a trio, reciting the ordinary events that would happen in the lives of three girls who are working. Three times a week that appears.

We have a Scotch dialogue, which I may be pardoned for mentioning, three times a week, I believe. We
755 have a negro dialect team every evening. We have various special events of that general character; and we have also regular religious services over WIBO which we feel are interesting to a large audience of listeners.

We feel in particular that the Scandinavian element of the population of Chicago and throughout the northwestern region are tremendously interested in the Swedish and Norwegian programs which are broadcast on Sundays; the Swedish program being one of the oldest radio programs of continuous, unbroken existence on the air in Chicago, I believe.

We feel, and have been told by many people writing in, that that program is highly appreciated by people living in sections where there are no churches in their language which they can reach.

In general, our effort is to diversify our programs so as to fill in where we have an opportunity with entertainment that will be interesting to various classes of the public and to the public at large; it being our purpose to operate a radio station so that it may make money through giving superior service to the listening public as nearly as we are able to deliver such service.

Q. How long is this Swedish religious service? A. It will appear in the Sunday record here—normally from about 8 to 10 o'clock in the morning. I believe that is the time, if I may refer to our April program——

Q. The Swedish service is from 8 o'clock in the
756 morning until 10 o'clock? A. I think you will find that is approximately the time occupied by it.

Redirect examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. I would like to ask you one more question before you leave the stand. In the attempt of WIBO to broadcast, as you have indicated on cross examination, programs of high class, what programs would you use as a criterion in arriving at an opinion as to what a good program is? A. Programs such as are broadcast by the chain, the National Broadcasting chain and the Columbia chain, are indicative of quality, I believe; and we try to keep our quality up to or exceed that if we can.

Recross-examination on behalf of the applicant.

By Mrs. Willebrandt:

Q. Who is the minister that conducts those Swedish services? A. Various ministers appear in those services.

Q. Mr. Nelson's father is a Swedish minister, is he not? A. Mr. Nelson's father usually opens the service. I believe he has conducted the service in general, obtaining ministers from many, many churches to appear on those programs.

757 Q. And then you send bond salesmen to the writers of the different letters that are received with regard to this Swedish service? A. I have nothing to do with the sales of bonds.

Q. Do you know whether or not that is true? A. I don't believe that is true.

Chief Examiner Yost: Do you know whether or not it is true?

By Mrs. Willebrandt:

Q. Do you know that Mr. Nelson testified to that here about a month ago? A. I am not informed about the testimony. I do not believe that is the general practice.

Chief Examiner Yost: Why do you call it a Swedish program? Is it broadcast in the Swedish language?

The Witness: Yes, sir.

Mr. Cook: Mr. Examiner, may I propose that the statement which Mr. Craven has prepared since his testimony, accurately setting forth his definitions of service with respect to interference with radio stations, coupled with a columnar statement of measured ratio between the signal strength of the desired station and the interfering station in the matter of cross talk, heterodyne and flutter interference, with the different frequencies involved set forth in columnar form, be agreed to be placed in the transcript so that the accuracy thereof cannot possibly be the subject of confusion such as in a word of mouth statement?

758 Mrs. Willebrandt: Will the Examiner please postpone ruling on the matter until we have had a chance to look it over?

Chief Examiner Yost: Yes. We will take a brief recess.

Mr. Cook: If the statement is put upon the record, may it be inserted as near as possible to Mr. Craven's direct testimony?

Chief Examiner Yost: Yes.

F. M. Russell was called as a witness for and on behalf of respondent WIBO and, having been duly sworn, testified as follows:

Direct examination.

By Mr. Boyd:

Q. Please state your name. A. F. M. Russell.

Q. You live in Washington? A. I do.

Q What is your occupation? A. Vice president of the National Broadcasting Company.

Q. How long have you been the vice-president of the National Broadcasting Company? A. A little over two years.

759 Q. As vice-president of the National Broadcasting Company, I will ask you to state briefly in the record a description of your duties. A. Well, I am in charge of all of the activities of the National Broadcasting Company here in Washington.

Q. By reason of your official connection, being an officer of the company, do you have knowledge of the operations

of that company in cities other than the city of Washington? A. Yes.

Q. Do you know whether or not WIBO is a regular correspondent of the National Broadcasting Company in Chicago? A. It is.

Q. Do you know the number of hours of programs being broadcast by radio station WIBO in the city of Chicago which originate in the studios of the National Broadcasting Company and are broadcast by that station? A. Yes.

Q. Do you also know the number of hours that are broadcast by other stations in the Chicago region which originate in the studios of the National Broadcasting Company? A. Yes.

Q. Do you know also in that connection the number of hours of sustaining programs that each of the Chicago stations broadcasts, which originate in the studios of the National Broadcasting Company? A. Yes.

760 Q. Do you also have the same information with reference to commercial programs originating in the studios of the National Broadcasting Company? A. I do.

Q. I will ask you to state for the record the number of hours broadcast, both commercial and sustaining programs, by all of the stations in the city of Chicago who are correspondents of the National Broadcasting Company. A. I have taken the last full month for our records. That is, the month of March, 1931. I have all these figures for the month of March on an average basis here. I am trying to figure how to so state them that they will be as clear as I want them to be.

I have taken all of the sponsored or commercial hours, the sustaining hours and the institutional hours. We make a difference or distinction between sustaining and institutional. Sustaining are those programs which we sell to the station. The institutional programs are those which we give to the station without cost. For example, certain public events, addresses by the President and certain public officials; programs which we feel have a general public interest and of which we want to get the broadest distribution are frequently offered to the station without charge.

Chief Examiner Yost: Mr. Russell, is the announcement always made in connection with those broadcasts that it

is a contribution of the National Broadcasting Company?

The Witness: Usually that is made a little more clear than the case of the sustaining programs, but both
761 of them are presentations of the National Broadcasting Company. The radio audience probably would not understand from our announcement whether or not they were sustaining or institutional programs.

During March the daily number of sponsored or commercial programs taken by the various N. B. C. outlets in Chicago was 7 hours and 28 minutes of sponsored or commercial programs. 8 hours and 4 minutes of sustaining programs; 2 hours and 13 minutes of institutional programs, or a total daily average for March of 17 hours and 45 minutes, of all programs.

Do you want me to give the total for each station?

A. The total of each class for each station is: WGN, 1 hour and 40 minutes sponsored programs; 1 hour and 11 minutes of sustaining programs; 57 minutes of institutional program, or a grand total of 3 hours and 48 minutes. That is the daily average for March.

WLS—and in this connection I think we should bear in mind that WLS and WENR are dividing time—WLS, 41 minutes of sponsored program; 9 minutes of sustaining programs; no institutional programs; a total of 51 minutes.

WIBO, 2 hours and 26 minutes commercial program; 2 hours and 19 minutes of sustaining program; 33 minutes institutional program; a grand total of 5 hours and 18 minutes.

KYW, 1 hour and 32 minutes sponsored program; 1 hour and 1 minute sustaining programs; 11 minutes in-
762 stitutional programs; a grand total of 2 hours and 44 minutes.

WENR, 1 hour and 9 minutes of sponsored program; 2 hours and 51 minutes sustaining program; 24 minutes institutional program; a grand total of 4 hours and 24 minutes.

WCFL, 33 minutes of sustaining program; 7 minutes of institutional programs; a grand total of 40 minutes.

Q. How many hours of programs are originated by the National Broadcasting Company in their studios for general circulation which do not go into the city of Chicago?
A. We originate on both the Red and Blue network——

Q. You understand, I have reference only to the eastern part of the chain and not to the Pacific coast. A. The daily average of programs originated on both the Red and the Blue network run approximately 18 hours a day, or a total of both networks, different programs, of 36 hours a day.

Q. And it follows that slightly less than half of the programs originated by N. B. C. find their way into the city of Chicago by use of stations operating within the city of Chicago? A. That is true; and I am assuming that approximately all of the programs, whether they are sponsored, sustaining or institutional, which originate in our various studios, are adapted to the Chicago area. There may be a few exceptions, but not many.

763 Cross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. The N. B. C. owns WGN in Chicago, does it not? A. No.

Q. It leases it? A. WGN is the Chicago Tribune station.

Q. Which one do you lease? A. WENR.

Q. How about WCFL? What relationship do you have with that, if any? A. None other than it is one of our associated stations, one of the stations which is offered programs.

Q. Do you put any programs on WGN? A. Yes.

Q. Do you know what the rates for WGN and WCFL are? A. No; I don't know what the rates are.

Q. The hour rate? A. Our rates to them are the same.

Q. WGN charges $350 an hour, do they not? Do you know whether or not that is right? A. I don't know, but I would say it was approximately that.

Q. And you pay $50 an hour? A. For commercial programs.

Q. Have you any reason to believe that they would not take lots more of N. B. C. programs if N. B. C. paid
764 the rate? A. I presume they would. That is, we have considerable difficulty with the present rates.

Q. How many network programs does N. B. C. present simultaneously? A. We have 18 hours a day on both networks, and they run simultaneously. No duplications.

Q. You present the Blue and the Red network simultaneously? A. Yes.

Q. Do you control one of the outlets, WENR? A. At the present time; yes.

Q. Do you use all its time with your programs? A. No.

Q. You sell the rest of the time? A. Well, we have only had the station a limited time, and that station has certain contracts which we feel disposed to carry through; and I do not suppose, taking our own experience here in Washington, that it is necessary from the standpoint of public interest to maintain local identity for that station.

Q. You sell the time you do not use for lots more than $50 an hour, do you not? A. It has been sold. I don't know what contracts we are making at the present time for WENR.

Q. But you are making contracts to sell time on WENR now? A. I couldn't say definitely. We have made
765 a very small number of contracts for the very simple reason that we control the station through lease and our clients insist that they have that station for an outlet in Chicago, and we have a certain moral responsibility, at least, to give them that outlet if it is possible.

Q. I am calling attention, now, to applicant's Exhibit 5, referring to the Chicago stations, with circles marking the service area as defined by the Federal Radio Commission in the WGY case. Will you state whether if WIBO were removed from the Chicago area there would still be at least six stations serving the same territory or larger territory from which you could contract for time? A. Well, potentially, yes. Practically, it would be impossible. We have been trying for two years.

Q. Would it practically be impossible because they would not sell you the time at $50 an hour? A. That is right.

Redirect examination.

By Mr. Boyd:

Q. I will ask you to state whether or not you know this station operating on a thousand watts at night and 1500 watts in daylight has rendered to the National Broadcasting Company satisfactory service? A. It has.

766 **V. Ford Greaves** was called as a witness for and on behalf of respondent WIBO and, having been first duly sworn, testified as follows:

Direct examination.

By Mr. Boyd:

Q. You are the Assistant Chief Engineer of the Federal Radio Commission? A. Yes.

Mr. Boyd: Are you willing to admit his qualifications?
Mrs. Willebrandt: Certainly.

By Mr. Boyd:

Q. I will ask you to state what are the factors which go to make up the quota of a state? A. The factors which are used by the Engineering Division in calculating the quota of zones and states are essentially radio broadcasting facilities; and facilities are licenses, frequencies, hours of operation, and power.

Q. Then power alone is not the primary factor in determining the value of the facilities granted to states; is that right? A. No. Power considered by itself is only one of the factors and, considered alone, amounts to practically nothing.

Q. If all the factors are included, how does this
767 compare with the actual quota units assigned a state?

A. The quota units as given in General Order 92 are based upon those four factors, including power.

Q. As an engineer do you agree with the standards of interference ratios for various frequencies as set forth by Commander Craven in his testimony? A. I do, with certain amplifications from my own experience along this line. The question of interference, I think, is to a great extent, a matter of personal opinion, depending upon a great many variable conditions; and I might give a few examples. For instance, in considering interference we must consider program—the type of program, for one thing; the personality of the listener for another thing; how he happens to feel at the time is another one; and also the acoustics of the room in which the observations are made is a very important factor and one which is very seldom considered.

For instance, if you have a program consisting of a brass band or a loud jazz orchestra there is a certain amount of interference which might not be objectionable—and there are some who think it might even improve the program. On the other hand, in certain other types of pro-

grams where there are silent periods—for instance, in a religious program during a silent prayer, the slightest amount of interference is considered very objectionable by a great many people. In fact, many listeners who complain of interference under those conditions complain of interference which originates in their own receiving sets. It does not come in from any other station at all. A
768 little A. C. hum in their own receiving set will be complained of as interference.

With those modifications I think that we have some basis to consider, and on that basis of average I think the figures which have been submitted by Commander Craven will represent a very good average.

Cross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. How far apart should stations be with a thousand watts power, regional stations? A. Two regional stations each of 1,000 watts power should be separated 1200 miles to reduce objectionable interference in the good service area of each station when operating simultaneously on the same frequency.

Q. How far is Syracuse from Gary, Indiana? A. I don't have an accurate map, but my records indicate approximately 600 miles.

Q. What would you expect as to interference between two stations operating 600 miles apart, or half the distance you have recommended, if their frequency was 1360 as compared with the same stations if their frequency was 560? A. From my own experience I would expect the difference to be so slight that the average listener could not tell the difference.

769 Q. Suppose you had lived in the good service area where two stations on the 560 frequency were operating closer than your recommended distance apart, and you encountered no interference, but consistently good reception, and in the same area two stations were operating on 1360 and had interference and cross talk and heterodyne: would you change your reply? A. No; I would not change my reply. I would investigate the technical adjustments of the stations.

Q. You would then examine the technical adjustments of each of the stations? Is that what you mean? A. All four of them.

Q. Suppose you had no access to any except one of them; what would you do? A. I would not inspect it.

Mr. Cook: You mean, you would not inspect the one you had no access to? A. No.

Chief Examiner Yost: The Examiner wonders if it is clear what is intended by the question and the answer. Did the witness mean to say that he would not inspect the station to which he had access?

The Witness: No; I would not inspect the station to which I had no access.

Chief Examiner Yost: But the question was, if you had access to but one of them, what would you do?

The Witness: Well, I was considering largely a hypothetical proposition.

By Mrs. Willebrandt:

Q. And it is still hypothetical, but it is a narrowed
770 hypothetical situation. Where you have access to but one of the four stations that we have described, what would you do then? A. Then I would assume that there must be something wrong with whichever station did not comply with the theory.

Q. Suppose you lived in the good service area of two stations: the one on the 560 frequency is about 600 miles from its associate station on the 560 frequency; the other on the 1360 frequency is about 600 miles from its associate station on the 1360; you have access to one station on the 1360 frequency; you listen consistently over several years, or at least a year's time, and consistently experience clear and uninterfered-with reception from the station on the 560 frequency, and receive interrupted reception, across talk and heterodyne, from the station on the 1360 frequency; you put your 1360 station in a satisfactory condition and still get heterodyne and cross talk from it and still get clear reception from the 560 station: what would you do?

Mr. Cook: Now, if your Honor please, there is an assumption in that hypothetical question which is not predicated upon any evidence in this record, because that assumption must be based upon proof in this record that

Station WJKS has been put in good condition; and the evidence is to the contrary.

Mrs. Willebrandt: I have not referred to any station in the question.

Mr. Cook: You must refer to some station that has been talked about in evidence here, or it is not a proper hypothetical question.

771 Mrs. Willebrandt: We are in this question, Mr. Examiner, seeking to make more concrete the opinion of this expert witness when he answered that he would not change his opinion that no greater interference would come from 1360 than from the 560, even if he had had experience to the contrary.

Chief Examiner Yost: It was not intended that the hypothetical question be predicated upon the testimony given in this case.

Mr. Cook: Then it is not in the case.

Mrs. Willebrandt: I am not intending anything by the hypothetical question except to get more clearly the opinion of this witness.

The Witness: I think I can clear up a great deal of misunderstanding in regard to the difference between high frequencies and low frequencies in the broadcast spectrum.

By Mrs. Willebrandt:

Q. I would like to know your opinion as an engineer, what you would do in that given instance. A. If I was to correct the situation?

The Witness: The only part of it that is not clear to me is, what would I do as a listener, or what would I do as an engineer if I were employed by one of the stations, or what would I do if I was given the job of eliminating interference? There are three ways to answer it——

By Mrs. Willebrandt:

Q. Manifestly as a listener you could not do any-
772 thing. A. Oh, yes; a listener can eliminate it very easily.

Mr. Cook: You say he cannot do anything, and he says he can.

The Witness: As a listener, all you have to do is to engage the services of a radio service man and reverse the ratio of the induction to capacity in your receiving set and make it more selective on the high frequency than it is on the low frequency. That is one step.

By Mrs. Willebrandt:

Q. What would you do as the owner of the station, and then what would you do as an engineer? A. As the owner of the station, if I could not get the other station to cooperate with me in eliminating the interference, then I would try, of course, to get on to another frequency, where a station would cooperate; but I would expect in so doing that if I made such a shift that maybe next week the station that I got on with might go off maintenance and I would have the same trouble there and want to go back to my other one. It is not a cure——

Chief Examiner Yost: You would expect to put your station in the best possible mechanical condition?

The Witness: Yes; by all means.

Mr. Cook: I point out at this stage, again, Mr. Examiner, while the question has been put and the answer made, the question is in bad order because it presupposes that the station being considered first has been put in good condition; and there is no evidence here that WJKS has
773 yet been put in good condition.

Chief Examiner Yost: That is understood. The answer was given with that understanding.

Mrs. Willebrandt: The answer was not given with the understanding that WJKS has not put itself in good condition.

Mr. Cook: It is up to the Examiner to decide that point.

Chief Examiner Yost: That there has been no proof that the station had been put in the best possible mechanical condition.

Mrs. Willebrandt: Is the Examiner holding that that is material in asking the hypothetical question?

Chief Examiner Yost: No.

By Mrs. Willebrandt:

Q. Would the granting of full time to Gary increase the quota of Indiana? A. It would, unless equivalent facilities were also removed from Indiana at the same time.

Q. Would the taking of the full time assignment from WIBO and WPCC decrease the quota of Illinois?

By Mrs. Willebrandt:

Q. Would the effect of the granting of full time
774 assignment to Gary, Indiana, be to bring the Illinois and Indiana quota figures nearer to those which the Commission has determined they are entitled to? A. Yes.

Redirect examination.

By Mr. Cook:

Q. Mr. Greaves, if the suggested addition of facilities at Gary, Indiana, were awarded, would that improve the general broadcasting situation in the State of Indiana for the interest, convenience and necessity of that state, the station being in the northwest corner of Indiana within 20 miles of Chicago, Illinois? A. From a purely engineering point of view we consider that a signal of a given field strength is service, independent of the type of program; and on that basis it would appear that Gary is already served with a sufficient number of microvolts from stations in the vicinity to give it a large variety of radio service.

Q. Would the additional facility, if any were awarded to Indiana, be better located for the interest, benefit, necessity and convenience of the people of the State of Indiana if awarded within the central range or lower range of the state, or the northeastern range of the state? A. The allocation plan from an engineering point of view does not take into consideration the location of stations within each state, but it is clearly evident from an engineering point of view that the best service is the best distribution,
775 the widest possible distribution.

By Mr. Boyd:

Q. Having in mind your answer with reference to the matter of the application to change from 1360 by WJKS to 560, which is now used in the State of Illinois by WIBO and WPCC, I will ask you if the granting of that application would not further increase the quota which the State of Illinois is entitled to under the computation of the Federal Radio Commission with respect to regional channels.

A. My record shows that Illinois on regional channels is due 7.31 and assigned 2.95. The removal of this
776 facility from Illinois would reduce the number of regional channel assignments.

Q. Is Illinois entitled to 7.31? A. Yes.

Q. And they use 2.95? A. Yes.

Q. And to allow this application would make the under quota in the state greater than it now is on regional frequencies? A. On regional frequencies the quota would be reduced .69 units.

By Mr. Boyd:

Q. It is a fact that the State of Illinois, so far as regional channels is concerned, in the assignment of regional channels, is under quota?

Recross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. You said, it would put Illinois under quota for regional channels. How much under? A. .69.

Chief Examiner Yost: Would it reduce the regional assignment by .69?

777 The Witness: Yes.

Chief Examiner Yost: Mrs. Willebrandt asked how much it is under on regional assignments.

By Mrs. Willebrandt:

Q. Chicago, according to your quota sheet there, has how many units in regional channels? A. I don't have it divided into cities. I have it by states.

Q. All right; the State of Illinois? A. Illinois is due 7.31 units in regional channel assignments.

Q. And it has what? A. There are now assigned 2.95 units; and if this facility is withdrawn from Illinois the assignment will be reduced .69 units.

Q. Now, Mr. Greaves, has the Commission by any order, order 92 or any other, allotted to zones or states any definite number of regional channels as such?

A. Yes; by General Order 40.

Q. Then is the State of Illinois over quota? A. The state of Illinois is over quota on total facilities, but under quota on regional facilities.

Q. Then if the State of Illinois is over quota on total, and this application were to take off a clear channel station, would it make Indiana over quota? A. I don't understand that at all.

778 Mr. Cook: The application deals with this regional station. Are we to investigate what would happen if another application were filed?

Chief Examiner Yost: Why did you put into the question that if this application should take from Illinois a clear channel frequency?

Mrs. Willebrandt: Order 102 makes you apply for something definitely. Evidence has been introduced that according to the quota figures of the Commission—and this witness has testified that there is an allotment under General Order 40—the State of Illinois is entitled to so much regional facility. The Commission's General Order 102 commands the applicant to choose a particular station to bring over into the State of Indiana. If it chose a clear channel station, which he says they are only over quota on, would it make Indiana over quota?

Chief Examiner Yost: There is no proposition here to take a clear channel from Illinois.

Mrs. Willebrandt: I am bringing out, though, the impossibility of his theory of 40, which I do not think is sustained by the law in the face of General Order 102. This applicant had to choose something to take out of another area. Had it chosen a clear channel station it would have made the state that it is asking the assignment of that clear channel station to, over quota.

Mr. Cook: I think that is purely a philosophical question that is being asked. I think that Mrs. Wille-
779 brandt has chosen her target and she has got to stick to the target or else quit shooting.

Mrs. Willebrandt: I am sticking to the rules of the Commission. They have never been tested out. They are inconsistent in their application, but we are going to apply them by letter and by interpretation, for just as they are interpreted they should be applied until their inconsistency shows up.

Mr. Cook. If she has come here under the rules and orders of this Commission and made an application, she

takes under the will. Now she wishes to attack the will and take the dower right.

Mrs. Willebrandt: No; I do not wish to attack the will; I wish to get the will interpreted.

Chief Examiner Yost: I can see no objection to the witness testifying, while I do not regard it as material, what the unit value of a clear channel station is.

Mr. Cook: It is purely informative and not pertinent.

Chief Examiner Yost: The Examiner agrees with that.

Mrs. Willebrandt: This is really in the record by the order, anyway——

Chief Examiner Yost: Yes. The witness may state the value of a clear channel station, which would be in substance an answer to the question. But the Examiner does not regard it as material.

The Witness: A clear channel full time assignment has a unit value of 5.

By Mrs. Willebrandt:

Q. Would 5 added to Indiana's present under-
780 quota condition make it over quota? A. Yes; 5 would.

Q. Is it your statement here, Mr. Greaves, that General Order No. 40 definitely allocates in percentage the clear channel or regional facilities to states within a zone? A. Not in percentages; no.

Q. Does it in any other way actually allocate to states those definite facilities, or does it evaluate those facilities and add up the totals and determine as a total whether a state is over quota or under quota? A. General Order 40 has no particular bearing on quota, but it divides frequencies into three classifications and allocates them to zones and states as such.

Q. Then it is your statement here that General Order 40 allocates definitely regional channels to states as such? A. Regional channel frequencies.

Q. It allocates them? A. Yes.

Q. Then would you say that General Order 92 is correct in stating that Indiana is under quota and Illinois is over quota? A. On total radio facilities.

Q. If it is not clear I will ask the question in another way. Does General Order 92 state that Illinois is over quota? A. No; it merely defines the unit value of certain allocations or assignment.

Q. But it does not allocate those assignments 781 & 782 at all, does it? A. No.

Q. Does it in totaling the values reveal that Indiana is under quota? A. General Order 92 does not.

Q. Does a later order of the Commission? A. I don't recall any order of the Commission on quota.

Q. From the tabulations of the Commission do you state that Indiana is or is not over quota? A. The tabulations of the Commission, based on all of the factors that go to make up quotas, show that Indiana is 20 per cent under quota on total facilities as of April 14, 1931.

Q. How many units under quota? A. 1.95.

Q. How many units is Illinois over quota? A. Illinois is over quota 11.15.

Q. Is there any other state in the 4th Zone that is over quota as many units as Illinois? A. No.

783 By Mrs. Willebrandt:

Q. From your understanding of the orders of the Federal Radio Commission allocating facilities to the various states and zones, it is your opinion that the statement of the Federal Radio Commission——

Chief Examiner Yost: You are assuming that there is such a statement. It is not in the record, is it?

Mrs. Willebrandt: I think it is in the record, in the reply of the Federal Radio Commission in this case.

By Mrs. Willebrandt:

Q. (Continuing:) —stating that Indiana is under quota and the 4th Zone is over quota—is that correct or not?

Mr. Boyd: I object to the question on the ground that this witness is here as an engineer, as an official of the Federal Radio Commission and as an employee thereof. She is now asking this witness to answer a question which is peculiarly within the purview of the courts.

Chief Examiner Yost: It has been frequently shown by the testimony in this hearing that Illinois is over quota and Indiana is under quota. If you mean for him to say whether that is right according to the record, he may answer, but whether it is correct as a matter of policy or regulation——

Mrs. Willebrandt: Whether he understands that is correct according to the orders of the Federal Radio Commission.

Mr. Clifford: The quotas speak for themselves.

The Witness: The quota system and the quota tabulations which are used by the engineers and calculated by the engineers are based upon an engineering interpretation of the Davis Amendment and the orders of the Federal Radio Commission; and it is my opinion as an allocation engineer that the present system showing Indiana 20 per cent under quota and the 4th Zone 27 per cent over quota is as accurate as it is possible to develop with any reasonable degree of accuracy.

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Mr. Cook: One question, an engineering inquiry: Interference is present generally in these regional stations, is it not? Is interference encountered in regional stations?

The Witness: An engineering definition of a regional station, a regional station classification, is service area restricted by interference, unavoidable interference.

788 **Alvin E. Nelson** was called as a witness for and on behalf of respondent WIBO and, having been duly sworn, testified as follows:

Direct examination.

By Mr. Boyd:

Q. Your name is Alvin E. Nelson? A. Yes.

789 Q. You are president of Nelson Brothers Bond and Mortgage Company, an Illinois corporation? A. Yes.

V. Ford Greaves, the witness under examination at adjournment, resumed the stand and, having been previously duly sworn, testified further as follows:

Cross-examination (resumed).

By Mrs. Willebrandt:

Q. I show you this document marked "Federal Radio Commission, July 2, 1930," and ask you to state what it is.

Is it necessary to identify that document, Mr. Examiner?

Chief Examiner Yost: The practice has been to have copies of all documents from the files of the Commission certified and offered in duplicate.

Mrs. Willebrandt: I will have it certified, then, if I may have it identified and testified to now. I have it here in duplicate.

A. This document, dated July 2, 1930, No. 2695, is a release by the Commission entitled "Equitable division
790 of radio broadcast facilities within the United States. Explanation of General Order No. 92 and revised quota tables."

By Mrs. Willebrandt:

Q. You are familiar with this document, are you? A. Yes.

Q. Will you just state what, in your opinion, as an engineer of the Federal Radio Commission, this announces with respect to a state that is over quota in total facilities assigned but which may have less in detailed assignment of power or regional channel or daytime stations or night time stations announced as due? A. Prior to the adoption of General Order 92 the equity tabulations used by the Engineering Division when calculating quota were based upon General Order 40 and the Davis Amendment. At that time quota was tabulated only on the basis of full time assignments due and assigned in each of the three classifications, clear, regional and local. That is, the three classifications of stations known as clear, regional and local, were calculated as to the number of full time facilities of each classification due each state under the Davis amendment, and then the number or fraction of an assignment was tabulated alongside of the number of assignments due, so that the difference between assignments due and assignments licensed showed whether or not the state was over or under quota on each classification. But under this system there was no method of adding the three classes of facilities to determine whether or not the state was over or under quota on total radio facilities. Therefore that led to the adoption of General Order 92 and the tabulation of facilities
791 on the basis of units, so that the quota could be determined on total facilities independent of the ratio of these classes.

Q. What is your opinion under the regulations and engineering practices of the Radio Commission relative to the removal of any facility from a state that is over quota in

total assignments of units? A. All of the engineering calculations in regard to quota are based on total facilities independent of the ratio of the three classes.

Q. Under the engineering practice and orders of the Commission, particularly since the adoption of quota figures, is a state that has a total facility licensed in clear channel stations so over quota in clear channel assignments only that the reduction of the quota would be limited to removing from that state clear channel assignments only?

Mr. Cook: If the Examiner please, that kind of an inquiry of the witness is not taking his opinion on any scientific or engineering question, but it is entering the field of judgment and policy and practice of the Commission in the light of the Davis Amendment and its provisions, and I think that while the witness' expressions may be interesting, it cannot be said to go to proof on which judgment can be made in this hearing.

Chief Examiner Yost: The Examiner is of the opinion that the question touches upon a matter that is in issue here; but as to the qualifications of this witness to testify, that is, to give any expert opinion. it is not an engineering question in the opinion of the Examiner. The Ex-
792 aminer is frank to say that he is not advised of the consideration or weight given by the Commission to the fact of a state's being over quota on an assignment of regional, local or clear channel facilities in cases where there is an application for additional facilities in that state in the particular class where it is over quota and where another class in the same state is under quota.

For example, if the State of Ohio is over quota on local assignments, is under on regional and under on clear channel assignments, and is entitled to additional radio facilities, and an application is made for additional local facilities, whether or not the Radio Commission regards that as a barrier to its granting that application for additional local facilities.

The Examiner is not advised of the Commission's attitude or position or policy with reference to cases of that kind.

Mrs. Willebrandt: My question, then, does not accomplish the end that I am seeking from this witness. I have no desire or intention to get from this witness any prophecy of what the Commission would do or what the Examiner would

do. I only believe that he is qualified to interpret the meaning of the quota and its explanation, because that is an engineering question; and I am trying, if I can, to make it clearer by pointing out the spot in this explanation of General Order 92 issued by the Radio Commission—I am directing my attention to the second paragraph which points out that the proportion of the maximum possible national radio facilities due each state is fixed by law.

793 This witness yesterday brought out the fact that in the set-up of facilities the Commission had listed as due each zone the facilities, and then, by zone, had broken it down into states in the zone. There would appear from the tables to be less than the maximum the state might use of regionals, but a great excess of total facilities. By the redirect examination emphasis was laid upon that figure of less than the amount which the State of Illinois might use of regionals. I believe this witness is competent, with the aid of the explanation of the revised quota tables given in this document which I have offered in evidence to support his testimony upon, to explain whether in the policies of the Radio Commission relative to the quota it would be within his department, it being an engineering question, the fact that the State of Illinois is now using less than the number of regionals it might have is any defense to their total or maximum over-quota condition.

The wording of this explanation of the revised quota tables, paragraph 2 particularly, is what I am addressing this question to; and I may put it perhaps in clearer form by asking directly whether the fact that there is less facility in use of a particular kind in a state, if that state in total facilities in use is over quota, is, under the rules and practices of the Radio Commission——

Chief Examiner Yost. He may answer that question.

Mrs. Willebrandt (continuing): —any defense to its over-quota condition.

Chief Examiner Yost: If you had not added that last clause——

794 Mr. Cook: If the Examiner please, our last purpose would be to limit the examination of this very competent witness. Anything he can say as to the facts in an engineering way or as to the statistics within his knowledge, may be useful. But that is already on the record. He stood cross examination yesterday as to the figures and

statistics. This question involves an interpretation of stated facts appearing in publications by the Radio Commission, official in nature. They are on the record. That very paper has been admitted. To ask him to express opinions interpreting rules and regulations, what would be the situation in this, that, or the other circumstance, is to ask him to give views upon matters which are part of the judgment of the Radio Commission on this very application, and they are useless from a probative standpoint; they are meaningless to the Commission which has to make a decision which will then be the view it is taking as to how its policies and its quasi-judicial acts are to be executed and adopted.

I think this is simply loading the record and taking time for something that is quite beyond the utilities of the proceeding. The Commission might consult with him as to what he thinks ought to be done; but it is not up to the applicant in this case to lay it on the record for their use. He has testified to engineering principles; he has testified to figure-facts. That is what they want to know if they want to examine this record to be informed as to the result of the hearing. It would go on for ten days at this rate.

Chief Examiner Yost: The Examiner is of the opinion that the witness can answer the question if the last phrase is left off as to whether or not it is a defense.

795 Mrs. Willebrandt: Will you read the question?

Mr. Newman: I object, for the same reasons that Mr. Cook has stated.

Mrs. Willebrandt: I will change that question, if I may, to rephrase the last sentence of it.

By Mrs. Willebrandt:

Q. I will ask whether you can say, in your opinion, that that condition would mean that the state was not an over-quota state.

Mr. Cook: I think that goes to the same thing,—his opinion as to the structure which might be erected or has been erected is useless on this record, interesting though it may be, and enlightening to us individually; but it does not prove a fact or an engineer opinion that is pertinent. He can advise the Commission, and probably does at great length; that may be his function with the Commission as one of its important advisers. But that is between him and the Commission and

something for the Commission to erect as a policy or as a judgment of the general position in the United States. It is meaningless here.

Chief Examiner Yost: It has been shown several times or frequently during this hearing that Illinois is an over-quota state in total facilities assigned. There is no dispute as to that and no question as the Examiner understands it.

Mr. Newman: It has also been shown what goes to make upon those facilities.

796 Chief Examiner Yost: Yes. The total of each, locals, clear channels and regionals, has been shown and put on the record.

Mr. Newman: And the elements taken into consideration in arriving at the unit value.

Mr. Cook: We are not here to change the policy of the Radio Commission. They will change that if they want to, in the light of their own knowledge by themselves secured for the purpose of erecting a general policy in the administration of the law; but for us to sit here and interpret what they have said in the past and suggest what they ought to have said or should say at the present time or what they ought to do in the future is not the function of this hearing.

Mrs. Willebrandt: I must here state that this does go to the heart of the situation as far as the defending of the record that is being laid in this case is concerned. I must remind Mr. Cook that I said in explanation of the questions that are being asked this witness that applicant in following General Order 102 is obliged to choose a facility which it desires to secure, when asking for the relief it prays for, in an over-quota state. There has been doubt cast upon this choice by the introduction of testimony to the effect that although Illinois was over quota in clear channels, it was under quota in regionals, thus building an inference which might be very misleading to one less versed in radio practice and law than the Commission is, that General Order 102 had not been complied with in that the applicant had not laid its petition for relief in conformity therewith

797 by choosing a facility in truly an over-quota state.

I think I can lay a better foundation, if the Examiner desires, to show that the witness collaborated with the Commission in the preparation of these regulations and orders and he is a proper person to explain the meaning of the words used.

Chief Examiner Yost: Let the Examiner express his opinion on that.

The Examiner is of the opinion that the fact that Illinois in under *on* regional facilities is no barrier or no defense to the granting of this application. The question is wholly one of public service and is determined upon the facts presented here. The applicant has sought a facility in an over-quota state for use in an under-quota state in the same zone.

Mrs. Willebrandt: I withdraw the question, and with that ruling from the Examiner the record is clear.

Chief Examiner Yost (continuing): Under General Order 102 and under the rules and regulations of the Commission.

Mr. Cook: Your expression of view on which you rule, if you rule, is that the application does show a request for a facility to come to the applicant's station in Indiana from Illinois where there is an over-quota condition as shown so far by the proof?

Chief Examiner Yost: That is right.

Mr. Cook: And then the whole case depends on judgment thereafter in the light of that fact.

Mrs. Willebrandt: I wish to introduce these documents which I will have certified.

798

Chief Examiner Yost: They may be admitted when properly certified in duplicate.

(Two copies of the document referred to, dated July 2, 1930, No. 2695, were received in evidence and identified by being marked "Docket 1156, Applicant's Exhibit No. 38", and were withdrawn for the purpose of certification thereof.)

Redirect examination.

By Mr. Boyd:

Q. Does not a clear channel station located near the border of a state also serve the adjacent state? A. Usually.

Q. Does it in the case of Chicago and the territory adjacent to Gary? A. Yes. I believe that all the clear channel stations in Chicago serve beyond the limits of the State.

Q. Then in so far as reception is concerned, a clear channel station can serve more than one state; and under the practice, the state in which the station is not located is not charged even though such state may receive excellent service from said clear channel station? A. Correct.

Chief Examiner Yost: The Examiner feels it proper, since that question has been raised to call the attention of all the counsel to this fact, and he regards it as an important one, and so far as he knows, it has not been passed upon by the Commission nor touched upon by any of the Ex-
799 aminers in their reports.

Section 5 of what is commonly known as the Davis Amendment provides that the people of all the zones—making the zone the unit—are entitled to equality of radio broadcasting service, both of transmission and reception. Then it provides how the Commission may bring about this result, that the licensing authority may grant licenses for frequencies or wave lengths and for time and for power.

What the Examiner desires to call especial attention to is that the provision in this section relative to the allocation or to the distribution of licenses among the states is that the Commission or the licensing authority shall make a fair and equitable allocation of licenses, wave lengths, time for operation and station power to each of the states according to population.

The Examiner wants to make himself clear on this. In the zones broadcasting service, both of transmission and reception, is taken into consideration, and it provides that all shall be equal; all zones are entitled to equal broadcasting facilities. States are entitled to equality of broadcasting facilities according to population.

What the Examiner has in mind since this question has been raised is that states are entitled to equality of power, wave lengths and time according to population. Therefore it is very apparent that Illinois is entitled to considerably more facilities than Indiana; but is Indiana chargeable with any of the facilities that are assigned to Illinois? That is the question. Zones are equal in facilities and shall have equality of broadcasting service, both of transmission
800 and reception. States shall have equality, based upon population, of power, time and frequencies.

The attorneys do not need to express themselves on this at this time if they do not want to, but later on I should be glad to have something from them in memorandums filed for the aid of the Examiner in the way of proposed findings, or a statement of facts and findings. He would be glad to have any help or suggestion. That question has long been in the Examiner's mind.

Mr. Clifford: What does the Examiner mean by "chargeable"?

Chief Examiner Yost: Chargeable as part of the quota. Is the fact that a lot of the reception from Chicago reaches Indiana entitled to any consideration whatever?

Mr. Cook: What was the Examiner's last statement?

Chief Examiner Yost: Is the fact that much of the broadcasting from Chicago reaches Indiana entitled to any consideration under the law?

Mr. Cook: You mean, it is neither in the case nor out of it.

Chief Examiner Yost: Because the law says, equality of time, power and frequencies among the states according to population.

Mr. Clifford: The question is, whether or not the law means that the facilities enjoyed by the population of the state must originate in the state, or can it be considered as having equal facilities if the facilities are brought in from some adjoining state?

Chief Examiner Yost: Yes. After much consideration the Examiner is of the opinion that the state is only chargeable with the facilities allocated to it of frequency, time and power, because the law says, equality among the states, according to population and provides it shall be based on time, power and frequency.

801

Mr. Clifford: You are answering the question, are you?

Chief Examiner Yost: I am simply giving my opinion. The Examiner may be in error.

Chief Examiner Yost: It is the Examiner's interpretation.

Mrs. Willebrandt: The Examiner would seem to be right in that opinion, because the Act itself provides that the stations shall be charged to the state where the principal studio is located.

Mr. Clifford: That is, that the state can only be chargeable with the broadcasting facilities which originate within the confines of the state.

Chief Examiner Yost: In other words, New Jersey is not chargeable with all the broadcasting out of Philadelphia or out of New York. You can only charge New Jersey with the assignments of time, power and frequency.

Mr. Cook: In other words, it is only chargeable with those stations using the power and the frequency and employing time there.

Chief Examiner Yost: Yes: In other words, the stations actually operating within its borders.

Mr. Clifford: The Examiner states that as his opin-
802 ion, but would be glad to hear from counsel if they have any ideas to the contrary?

Chief Examiner Yost: Yes.

The Witness: May I be permitted to make a brief statement on that, off the record?

Chief Examiner Yost: You may make it on the record.

The Witness: I have given this matter a considerable amount of study and attention and right along the lines of thought which the Examiner has expressed, and I think I understand the point which he makes, but I would like to go one thought further.

I think the Examiner's point is that if a zone has equality of reception and transmission and each state has equality of transmission, that would meet the requirements of the law. But supposing that the transmitter of a high power station is located on the edge of a zone and sends three quarters of its facilities into another zone: then we immediately come up against that problem again on the question of equality of reception.

Chief Examiner Yost: But under the law some state must be definitely charged with each of the assignments of every station. It is definitely assigned to some particular state.

Mr. Cook: And that is geographical ascertainment.

Chief Examiner Yost: Yes.

Mr. Cook: If the Examiner please, you suggested this question, and I wish counsel would consider it and at a later time submit their views. May we leave it in that position now and pass to the proof, so as to leave no curbstone opinions on it. It is obviously a matter that requires study.

803 Mr. Clifford: If counsel please, while the witness has given his view as to the situation in a case where there is broadcasting on the edge of one zone and it goes into another zone, I would like to ask the witness to continue that and say what his view is if the broadcasting is on the edge of a state where a large part of the broadcasting goes into and is received in an adjoining state.

Chief Examiner Yost: It is entirely chargeable to the state in which the main studio is located.

Mr. Clifford: Will the Examiner allow the witness to answer my question?

Chief Examiner Yost: Yes.

The Witness: As I said before, I had given this matter a considerable amount of attention, and recently before the Washington Section of the Institute of Radio Engineers I read a paper on this subject, and in that paper I brought out what I thought, from an engineering point of view, was the test of this very question; that is, as to whether the charge to a state of a station which is located on its border and sends most of its service into the population of other states is a proper one to the state in which the studio is located. To me the answer seems to be to ask that station if it is willing to forego the advertising which its state gets by the announcement of its call letters, the name of the station, the name of the city and the name of the company—in other words, if the station owner is not willing to
804 charge that entire station to the state in which it is located but which is putting its service into other states, and then take away his identity, and he is perfectly willing to take the full charge in his state, because states compete for popularity and for business just as do commercial companies.

Alvin E. Nelson, a witness previously called and sworn on behalf of respondent WIBO, resumed the stand and testified further as follows:

Direct examination (resumed).

By Mr. Boyd:

Q. I asked you, I believe, if you were the president of the Nelson Brothers Bond and Mortgage Company, an Illinois corporation. A. Yes; I am.

Q. With principal offices in Chicago? A. Yes.

Q. How long have you been the president of the Nelson Brothers Bond and Mortgage Company? A. Since its organization in 1925. It followed Nelson Brothers who had been in business since 1911.

Q. Nelson Brothers Bond and Mortgage Company
805 is engaged in what business? A. First mortgage real estate business.

Q. And is it also engaged in broadcasting? A. Yes.

Q. I will ask you if the business of radio station WIBO is conducted as a separate business from the bond and

mortgage business and how the books and records and financial records of radio station WIBO are kept. A. It is entirely separated from the Nelson Brothers Bond and Mortgage Company. A separate set of books is kept, and always has been.

Q. What with reference to the bank account? A. Similarly; the bank account of WIBO is kept in the Sheridan Trust and Savings Bank, and the Nelson Brothers Bond and Mortgage Company main account is in the Central Trust Company of Illinois.

Q. Have you prepared a balance sheet as of February 28, 1931, covering radio station WIBO? A. I have.

Q. Do you have that document before you? A. Yes, sir.

Mr. Boyd: We now offer as respondent's Exhibit 16-A balance sheet of WIBO as of February 28, 1931.

Chief Examiner Yost: What does it show?

The Witness: The balance sheet of WIBO.

Chief Examiner Yost: What period of time does it cover?

The Witness: This is of February 28, 1931

Chief Examiner Yost: The witness knows it to be a true and correct copy?

The Witness: I called the auditing firm of Thulin
806 & Company and had them prepare it from our records. There was some question raised in the last hearing as to the standing of Nelson Brothers, and I figured it would be a good idea to have it here.

Chief Examiner Yost: Do you have a certificate from them?

The Witness: It is simply on their letterhead.

Chief Examiner Yost: This relates only to the finances of the radio station?

The Witness: That is all.

Chief Examiner Yost: The receipts and disbursements?

The Witness. Yes, sir.

Chief Examiner Yost: There is no doubt about the matter being relevant. The only question is a question of proper proof. That is a copy of what was furnished you by the auditing firm?

The Witness: Yes, sir, by Thulin & Company.

Mrs. Willebrandt: Thulin & Company made it up from what data?

The Witness: I presume, from the books of WIBO.

Mrs. Willebrandt: Do you know?

The Witness: I do not know where else they would be able to get the information.

Chief Examiner Yost: Who engaged them to make it? Did you, personally?

The Witness: I called my brother down town and asked him to have a statement prepared of WIBO, and he
807 said that Louis was out of town; so I said, "You call the auditors and have them make it up for me." And he handed me this at the train as we left—the Capital Limited, last Wednesday.

Chief Examiner Yost: You do not know whether they had complete access to the books?

The Witness: Oh, yes; they have.

Mrs. Willebrandt: Is it a certified balance sheet?

Chief Examiner Yost: It is not certified.

Mrs. Willebrandt: It is not signed by anybody. Did you ask for a certified balance sheet?

The Witness: No; I did not.

By Mr. Boyd:

Q. Do you know whether or not that is a true statement of the condition of your books as of that date? A. It is.

Mrs. Willebrandt: How do you know it is?

The Witness: I followed the records of WIBO very carefully, and as far as I can see here, it is a record of the books of WIBO.

Mr. Cook: I suggest, if the Examiner please, that the very fact that they got certified public accountants to come in and draw up a balance sheet shows that it is accurate, because business men generally depend upon public accountants to draw up balance sheets.

Mrs. Willebrandt: There is not even any proof, Mr. Examiner, that it was prepared by a certified public accountant or that it was prepared from any data of original sources. It is a memorandum to support, appar-
808 ently, this witness' testimony. It seems to me that his testimony of its financial condition would be better evidence. He can refresh his recollection from this if he wants to; but as a document it is inadmissible.

By Mr. Boyd:

Q. Does the document which you have before you reflect the true condition of radio station WIBO as of that date? A. It does.

Mr. Cook: Then, if the Examiner please, I suggest, to save time, and save reading it into the record, he testify that it is his statement as to the condition of his station.

Mrs. Willebrandt: If the Examiner please, I object to counsel advising the witness how to testify. The document as such is either admissible or not admissible. If it is not admissible it might be proper to be used as a memorandum for him to refresh his recollection on and then testify.

Chief Examiner Yost: In the opinion of the Examiner, the document is not admissible.

Mr. Cook: That is what I just suggested. He says that the memorandum is, to his best knowledge, the statement of his company on February 28, and he testifies that those are the figures.

Chief Examiner Yost: Almost all of the applicants in the high power hearings were large concerns, such as the General Electric Company, Stromberg Carlson, and other companies, and they furnished printed copies of their financial statements containing a printed signature or the name of certified public accountants, and the documents were
809 admitted when it was testified by the manager or some witness that that was a copy prepared by the public accountants.

Mr. Boyd: If the only defect in it is that it is not signed, I will have it signed by the public accountants.

Chief Examiner Yost: He may be cross examined with reference to it and further examined by the attorneys for respondent.

(The balance sheet referred to, as of February 28, 1931, was marked for identification "WIBO 16-A.")

By Mr. Boyd:

Q. Do you know whether or not Bradstreet carries the rating of Nelson Brothers Bond and Mortgage Company? A. Yes, I do.

Q. Do you have the rating as prepared by Bradstreet? A. I have brought a Bradstreet book here.

Q. Will you get it and tell the Examiner what the Bradstreet rating is of your company? Do you have in your hand now the latest printed record of the Bradstreet Company? A. Yes; January, 1931.

Q. I will ask you to examine the book and find Nelson Brothers Bond & Mortgage Company, your company, and indicate the credit standing of that company. A. Nelson Brothers Bond and Mortgage Company, "L. A."

Q. What does that mean? A. That means $300,000 to $500,000, and first credit standing.

Q. Read what the heading is. A. "Estimated wealth, $300,000 to $500,000. Credit standing A. First credit standing."

810 Q. Have the operations of radio station WIBO been profitable since February 28, 1931? A. Yes; they have.

Q. What were the receipts during the last month? A. I called and had our bookkeeper send the deposit book here. From March 23, 1931, to April 22, 1931, the receipts were $28,252.72. During the month of March we show a net profit of in the neighborhood of $9,000 or $10,000.

Chief Examiner Yost: You know that to be the original bank book?

The Witness: Yes, absolutely. This is part of my work.

By Mr. Boyd:

Q. You are testifying from the original bank book of WIBO? A. Yes, which is carried in the Sheridan Trust & Savings Bank entirely separate from Nelson Brothers Bond and Mortgage Company. Only two can sign checks for WIBO, Miss Seffer and myself.

Q. Who is she? A. Our radio station bookkeeper.

Q. I will ask you to please indicate the employees of radio station WIBO. A. We have a personnel of 55 people.

Q. Have you prepared a list of those employees? A. Yes.

Q. Do you know that that list is a true and correct copy of what it purports to be? A. Absolutely. I made this list.

Mr. Boyd: We now offer as respondent's exhibit
811 17-A this document.

Chief Examiner Yost: It may be admitted.

(Two copies of list of personnel of WIBO were received in evidence and identified by being marked "Docket 1156, Respondent WIBO Exhibit No. 17-A," and are filed with the two copies of transcript in possession of the Commission.)

By Mr. Boyd:

Q. What is the total approximate pay roll covering the employees of radio station WIBO? A. I could not say exactly. Our total expenses run from $16,000 to $18,000 monthly.

Q. Would all its employees have to be discharged if this application was granted? A. They sure would.

Chief Examiner Yost: These are all full-time employees of Station WIBO?

The Witness: Yes, sir. It is divided into departments.

By Mr. Boyd:

Q. Are there any exceptions to that? A. The executive and business staff——

Q. Do not read the names. Did you understand what the Examiner asked?

Chief Examiner Yost: If they are all full time employees.

The Witness: Oh. Pardon me. In the program department we have one that is not full time.

By Mr. Boyd:

Q. Who is that? A. Sara Ann McCabe.

812 Q. Have you any on the executive and business staff? A. They are all full time.

Q. Is Mr. Lewis a full time employee? A. No; $45 each week we pay toward Mr. Lewis' salary. He is our controller and secretary of the company. We pay $90 a month from the WIBO account for his salary; so he would be part time. The balance, 53, are all full time.

Q. Do any of these people have families that they are supporting? A. Yes, they have. I would say the majority of them have.

Cross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. Is WIBO a separate corporation from Nelson Brothers Bond and Mortgage Company? A. No, ma'am.

Q. Who has the license for WIBO? A. Nelson Brothers Bond and Mortgage Company.

Q. Who, then, has the profits, if any, from the operation of Station WIBO? A. They would eventually, of course, be Nelson Brothers Bond and Mortgage Company's.

Q. How large a corporation is the Nelson Brothers Bond and Mortgage Company? A. One million dollars.

Q. I notice you call it a million dollar corporation
813 in your application for a license. Will you explain that? A. There is a million dollars of stock qualified; possibly $750,000 of ourstanding stock.

Q. Who owns that $750,000 worth of stock? A. The bulk of it is owned by thirty people that have been connected with us since 1917.

Mr. Boyd: Do you mean WIBO?

The Witness: No; Nelson Brothers—since 1917.

By Mrs. Willebrandt:

Q. Will you go down your list here and name those thirty people, or any of them that may appear on the list that you have introduced here, exhibit 17-A? A. This is a list of employees.

Q. There are not any stockholders in that list? A. No, only myself; and Mr. Lewis has one share of stock.

Q. No others that are stockholders on that list? A. No.

Q. Do you personally own the controlling interest? A. No. E. S. Nelson, my brother and myself own the controlling interest.

Q. Are you directly or indirectly interested in the ownership or control of any other radio station? A. No, ma'am.

Q. How about W9XAO? A. We have sold W9XAO to the Western Television Corporation.

814 Q. When? A. The records here will show. I am not sure of the exact date, but it is over a year.

Q. Do you have any connection with it at all? A. We have a contract with W9XAO to broadcast two or three periods during the day, television and sound.

Q. You do not own any of that television stock? A. Yes; 5,000 shares of the television stock.

Chief Examiner Yost: It is owned by the corporation?

The Witness: By Nelson Brothers Bond and Mortgage Corporation—five thousand shares of television stock.

By Mrs. Willebrandt:

Q. How much do you value that 5,000 shares of television stock at? A. I have no idea.

Q. Is it not true that you put it in your balance sheets at $62,500? A. That is what the stock was selling for, $12.50 a share. It is being sold now, I think, for $15.

Q. How much have you sold? A. We have not sold any.

Q. Mr. Thulin is a director in the television company? A. I think he is; yes.

Q. What is the connection, outside of the stock ownership, between the television company and Nelson Brothers Bond and Mortgage Company? A. Not any.

815 Q. What price does the television company pay for broadcasting over your station? A. There is no price paid. We have a 25-year contract with Western Television Company to reserve two periods each day for the broadcast of sound and television.

Q. I observed yesterday you had four periods. A. Possibly. We make shifts in it. There are possibly two or three 15-minute periods.

Q. How many hours a day are you going to give them for 25 years? A. Not over one hour each day.

Q. You do not charge them anything for that? A. They rent space in our building, 6312 Broadway, about 50 by 50 feet in the back of our building.

Q. What rent do you get from them? A. $262 monthly.

Q. How much do you charge an hour for time on your station? A. $300. A special Evening American rate of $250 per hour.

Q. Then an hour a day would be seven times $250 at your minimum rate, and you get nothing in return for that except the rise in value of your personally owned stock? A. It may do that. That was not the thought, however, in mind. We have worked on this television since July, 1928, possibly.

Q. The television stock is in the market for sale, you say, selling for $12 a share? A. It is either $12.50 or $15 a share.

816 Q. Does the Nelson Brothers Bond and Mortgage Company have anything to do with its sale? A. No, ma'am.

Q. Do you mention the stock over the radio? A. No, ma'am, never.

Q. You mention the television company. A. We mention that the program is being broadcast by WIBO at the top of the dial, owned and operated by Nelson Brothers Bond and Mortgage Company affiliated with the Chicago Evening American, and W9XAO, Western Television Corporation.

Q. What did you get the television stock in exchange for? A. For the transmitter and the television plant.

Q. How much were the transmitter and television plant worth? A. I considered them worth 5,000 shares of this stock.

Q. In dollars and cents how much do you figure that would be? A. I don't know.

Q. How did you arrive at the price you put in, then, on your balance sheets? A. That was a matter of negotiation with Mr. Wade.

Q. Who is he? A. The president of the Western Television Company.

Q. Was it a matter of negotiation with him as to the amount that you put in in order to get your rating in
817 Bradstreet? A. We have had a rating for years.

Mr. Cook: I object to that form of question, Mr. Examiner, because you cannot make Bradstreet take your appraisals and estimates. They do that themselves.

The Witness: We go back here several years, 1929, 1930, 1931—possibly go back into 1928, and you will find our rating in Bradstreet. We have been in Chicago for over 20 years.

By Mrs. Willebrandt:

Q. Before you had any television stock? A. Yes; before we had television or before we had radio.

Q. When did you get this radio station? A. The first license was early in 1925. We started working in the construction of WIBO in the fall of 1924.

Q. What was the reference to the organization of the Nelson Brothers Bond and Mortgage Company? What reference has that in time? A. Nelson Brothers Bond and Mortgage Company was organized in July, 1925.

The Witness: Successor to Nelson Brothers who had been in business since 1911.

By Mrs. Willebrandt:

Q. You have run the radio station by the Bond and Mortgage Company, then, during the existence of the Bond and

Mortgage Company, practically? A. No; it was owned first by my brother, E. S. Nelson, Dan Russo, Ted Ferrido and myself. There was a one quarter interest each.
818 Later we bought the interest of Dan Russo and Ted Ferrido.

Q. You are the president of both WIBO and Nelson Brothers Bond and Mortgage Company? A. Yes, ma'am, but since October of 1929 I have put in full time in the operation of radio station WIBO. My office is on the north side and our downtown office is on LaSalle Street.

Q. With reference to your total business do you find the profits of WIBO more or less profitable than the other branches of the business? A. There was a time when of course Nelson Brothers Bond and Mortgage Company, or Nelson Brothers, made a very large profit. During the past two years the real estate market yield has been hit very hard in Chicago. There have been something like 42 failures in the bond and mortgage business and some thirty odd banks, due to the real estate depression. Nelson Brothers Bond and Mortgage Company is one of the few companies that have survived this depression, and at this present time we are coming on the upgrade as far as profits are concerned. We have 3 hundred and ninety some odd apartments and nine vacancies. That is something that was unheard of a few months back.

Mr. Cook: You mean nine individual apartment vacancies?

The Witness: Yes, out of 399.

Mr. Cook: Three hundred and ninety-nine apartments or buildings?

The Witness: Apartments.

By Mrs. Willebrandt:

Q. How many shares of television stock are there
819 out? A. I have no idea; I couldn't tell you. I have not seen a statement of Western Television.

Q. Then you have no idea how you got this valuation of $62,500? A. Simply 5,000 shares of stock for our broadcasting station W9XAO.

Q. Who told you it was worth $62,500? A. I think it is worth $62,500.

Q. You just guess that? A. No; there was a certain value there. It was our old transmitter we had used before

that, moved out into the country. It had the towers on the roof of our building on Broadway. There was quite a good deal of equipment that was sold to the Western Television Corporation. They are still using that transmitter.

Mr. Boyd: Including the license?

The Witness: And including the license. It had cost us some money.

By Mrs. Willebrandt:

Q. In this list of your capital assets you put in the value of your television stock, according to the value of the W9XAO equipment, and with no reference whatsoever to the intrinsic value of the stock? A. The stock is on the market and selling every day, as far as I know, either $12.50 or $15 a share. I am not sure as to that. I have all I can do to take care of WIBO.

Q. You see, you have put in as a capital asset $62,500, and I am trying to get at whether you figured that on the basis of what you gave in exchange for the stock or
820 whether you figured it on the basis of the worth of the stock. A. I couldn't say exactly the figure that is or was charged against W9XAO.

Q. You think that your transmitter and equipment that you transferred in exchange for the stock, however, are worth $62,500? A. Including the cost of license, and so forth, I think it would be worth that amount.

Q. How much do you figure your license to be worth there? A. Possibly the amount of cost of attorneys, and so on, in reference to the license. That is the only charge we make against it.

Q. Then may I ask if you would set up as a capital asset for your company a glass diamond, if you happened to get that in exchange for a piece of property that you had transferred, that was worth $62,500, would you set up the glass diamond as worth $62,500?

Mr. Cook: That is an unfair and improper form of question. This witness has testified that they have 5,000 shares of Western Television Company stock, that it has a market value, and he has given the price of the stock on the market. If the object of the question is to ascertain whether it is an asset in the hands of Nelson Brothers——

Mrs. Willebrandt: I am searching for the worth of this witness' statement with regard to his million dollar corporation.

Chief Examiner Yost: Yes; the witness is perfectly qualified to answer the question, and he may state.

821

Mr. Cook: But the glass diamond illustration is not a fair illustration. I think the question should be reframed.

Mrs. Willebrandt: You can substitute anything you want to. What I am trying to get at is whether you put in your capital assets—if you don't like that word—something that is worthless, of any kind; if you took in a worthless piece of property.

Mr. Boyd: I object to that. We object to the statement that the Western Television stock is worthless. There is no proof to that effect.

Mrs. Willebrandt: I am not saying it is. I am getting at how he sets up his capital assets.

The Witness: If we had made a mistake and taken in trade a glass diamond for a piece of property, we would have to charge it off. If we had made that mistake, we would have to charge that amount off the books.

By Mrs. Willebrandt:

Q. Then how did you arrive at $62,500 when you put it on your books? A. I can't give you the exact figure.

Q. Did somebody tell you to put that down? A. No, ma'am.

Q. Then how did you figure it? A. I don't remember the costs we had charged against W9XAO. Whatever it cost was plus the cost of the license. That is possibly how we arrived——

Q. So you did make it the cost of the thing you traded for it, and not its worth? A. The worth of the stock, you mean, of the Western Television? We had no idea of the exact worth of that stock at that time, any more than we have now.

822

Q. $62,500 is a wholly fictitious figure so far as any knowledge you have in your mind is concerned?

Mr. Cook: I object.

Chief Examiner Yost: He may answer. He is an intelligent witness.

A. It is not a fictitious figure.

By Mrs. Willebrandt:

Q. Then tell me why it is not fictitious, and how you make it $62,500. A. Whatever the figure is was set up in some way by our accountants. I cannot tell you exactly. I think the stock is worth $62,500, personally.

Q. Why do you think so? A. The same thought that I had in radio six years ago, when others thought it was worthless. I think television is coming, and coming fast, and I think that the Western Television Company is farther advanced than any television company in the United States today, as far as the development is concerned. And you cannot buy that stock from me for $100,000 as an offer. That is what I think of it.

By Chief Examiner Yost:

Q. Does the Examiner understand that the Nelson Brothers Bond and Mortgage Company gave property in exchange for this television stock? A. Yes, sir; we did.

Q. No cash whatever passed? A. No cash. It was property that was exchanged, and the television license.

By Mrs. Willebrandt:

Q. And the fact is that you have no basic patents in your television company? A. We have none. The television company must have.

Q. Are you sure they have? A. I have not checked up on that. I think Mr. Boyd would possibly know.

Q. Do you think that the stock is valuable if they have not?

Mr. Boyd: The Western Television Company does own valuable patents issued by the United States Patent Office, I will assert that.

By Mrs. Willebrandt:

Q. That is the best answer you can make as to how you got $62,500 on your books? You do not want to explain that any more? A. In what way? What explanation do you want? We felt we had the value in station W9XAO that was owned by the Nelson Brothers Bond and Mortgage Company and was sold to the Western Television

Company when it was formed by Mr. C. F. Wade, for 5,000 shares of stock. We had pioneered on radio, and I was not concerned about pioneering in the television business; I would rather see somebody else do it. So we simply sold our interest in it for 5,000 shares of stock. That is the transaction.

824 Q. Then how did you get $62,500? A. It was sold in the market at $12.50 a share.

Q. What market? A. In Chicago. It is not listed on the curb; it is sold.

Q. Sold by whom? A. By the Western Television Corporation.

Q. Which has an hour over your station every day? A. That is simply television development. They have their laboratories in our building, the same as W9XAP, I think it is, the Western Television Company, sold a transmitter similar to ours to the Daily News.

Q. What are the assets of this television company. A. I have no idea. I have not seen a statement of the Western Television Company.

Q. What would be the total valuation of the company? A. That is something I could not say.

Q. Have you made any investigation along those lines? A. No, ma'am; I have not.

Q. Mr. Nelson, when did you first increase the capitalization of the Nelson Brothers Bond and Mortgage
825 Company? A. I believe it was two years ago. I am not sure as to the date—July or September 1929, I believe.

Q. Before we go on with that, let me ask you one more question about this Television Company. When you transferred it, did you have any basic patents? A. No, we have none. Mr. Sanabria, the inventer, has them.

Q. You say you increased your capitalization two years ago. A. I believe it was two years ago. I am not sure as to the date.

Q. That was just about the time you transferred the license of WIBO from an independent company to the Nelson Brothers Bond and Mortgage Company, was it not? A. I do not know as to the exact date of that. The records of the Commission will show that.

Q. The records of the Commission do not show the date of your increase in capitalization. You figure it is two

years ago. Can you tell me whether it was about the same time you transferred the license of WIBO into the Nelson Brothers Bond and Mortgage Company? A. I have no idea. I would have to check the date of the increase of the capital as well as the date of WIBO being absorbed by the Nelson Brothers Bond and Mortgage Company.

Q. I will ask you if, when you created this merger of WIBO, which had previously been owned by a separate company, into your Mortgage Company, about two years ago, you set up $97,389 as a franchise or development expense of WIBO, as an asset of your mortgage company. A. I do not know. That is about what the development expense is, I know that.

826

Q. How do you get that? A. A good deal of it has been legal expense in Washington, and some of the losses during the development of radio; and against that we have a reserve for depreciation of $54,627.36.

Q. When you transferred your radio station into your Nelson Brothers Bond and Mortgage Company, it was about the time that bond and mortgage companies were having a hard time, was it not? A. No. We had not started to have a hard time until after that.

Q. They were on the horizon? A. That had nothing to do with it.

Q. Did or did not this transfer of WIBO into the Nelson Brothers Bond and Mortgage Company assist you in the sale of stock and the sale of bonds? A. I think it has. We have always announced that WIBO is owned and operated by the Nelson Brothers Bond and Mortgage Company, and our company is well known through the radio activity. There is no question about that.

Q. When you had the station owned by a separate company you were obliged to show some exchange of values for this advertising, were you not? A. Yes. The station was owned by Nelson Brothers personally, and the Nelson Brothers Bond and Mortgage Company would absorb the loss of WIBO, or a part of the loss of WIBO, as an advertising appropriation, an advertising medium.

827

Q. And the merger of WIBO into the Nelson Brothers Bond and Mortgage Company obviated the necessity of accounting for the time on WIBO for advertising purposes of the Nelson Brothers Bond and Mortgage Company, as

an additional cost carried by the Nelson Brothers Bond and Mortgage Company? A. It was the only medium of advertising that we used, and our directors felt that a charge of $30,000 to $50,000 a year for advertising was perfectly O. K.

Q. What do you carry WIBO at now? A. $357,720.46. That represents the total assets of Radio Station WIBO.

Q. Break that down and tell us where you get that. A. There is cash on hand, as of February 28, 1931, $8,233.42.

Q. But that is cash that the Nelson Brothers Bond and Mortgage Company has the right to? A. No, ma'am.

Q. In other words, Mr. Nelson, you are giving the Examiner a separate picture of WIBO from the Nelson Brothers Bond and Mortgage Company in the figures you are reading now, are you not? A. This is an asset of the Nelson Brothers Bond and Mortgage Company.

Q. Does that asset have the $8,000, or does—— A. It is entirely separate.

Q. (Continuing:) —or does the Nelson Brothers Bond and Mortgage Company have it?

A. This asset has the $8,000. We are not taking
828 any of the cash on hand of assets of the Nelson Brothers Bond and Mortgage Company in this. It is one of the assets of the Nelson Brothers Bond and Mortgage Company, the same as property we own—apartment buildings are the same as this television stock you refer to, or any other assets our company owns. We own a good many buildings, and this is one of the assets.

Q. Suppose the Nelson Brothers Bond and Mortgage Company should fail tomorrow. Do you assert, for the benefit of the Examiner here, that your $8,233 could be saved? A. There is no danger of the Nelson Brothers Bond and Mortgage Company failing.

Q. I am not asserting they will fail, Mr. Nelson.

Chief Examiner Yost: That is a proper question, and should be answered responsively.

A. We would then, of course, sell Radio Station WIBO, and use that to liquidate any of the liabilities of Nelson Brothers Bond and Mortgage Company, although every liability that the Nelson Brothers Bond and Mortgage Company owe is secured better than two for one. We have no loans that are unsecured. We have no open accounts of

any kind. We owe the Central Trust Company of Illinois, for instance, $140,000. They have $300,000 in collateral. So, there is nothing that is open.

Q. What is the nature of that collateral? A. First mortgage bonds.

Q. On what? A. Real estate first mortgages.

829 Q. What are they worth today? A. Our bonds?

Q. The bonds you are talking about—the collateral. A. The Central Trust Company, with one failure after another, called Nelson Brothers in. Earl and I went in before the committee of the Central Trust Company. They said they wanted to get a record of every issue that we had made. We turned it over to the Central Trust Company, whose real estate experts went out and passed on every loan that had been made by Nelson Brothers. They came back and complimented us on the type of security that we had sold. I think the bonds we have are worth, dollar for dollar——

Q. What is the collateral? That was the question. A. First mortgages, and first mortgage real estate bonds.

Q. If all your mortgages and bonds are up as collateral, what do you have to sell? A. We have some mortgages and bonds on hand. If we sell, we pay off the loans at the bank on the bonds that we are selling.

Q. Is it your assertion, Mr. Nelson, that the assets that you have described here as belonging to the radio division of your Nelson Brothers Bond and Mortgage Company have any security as continued assets to safeguard broadcasting, separate from the financial stability and welfare of the Mortgage Company. A. I do not quite under-

830 stand that.

Q. I will put it in another way, if it will make it easier for you. In other words, if the Nelson Brothers Bond and Mortgage Company goes down, will it not drag with it every asset that you have tried to set up as an asset of your radio division of your company? A. I don't believe it can.

Q. How could you prevent it? A. The profits of Radio Station WIBO are running this year, on the basis of the first three months, better than $75,000.

Mr. Cook: That is not the question. Answer her question, which is, in case the Nelson Brothers Bond and Mort-

gage Company should fail, would that involve the radio station's continued operation under your management?

The Witness: It possibly would.

By Chief Examiner Yost:

Q. Wouldn't it, as a fact? As the Examiner sees it, this is one corporation, and, of course, all your assets are subject to the payment of the debts of the corporation. A. I don't believe that it would drag it down, because an asset that is in the condition of WIBO certainly would be allowed to continue.

By Mrs. Willebrandt:

Q. How would it? Would your creditors leave your $8,000 in the WIBO company, if they took your
831 mortgage business over? A. I believe they would, yes.

Q. You have no separate incorporation? A. No.

Q. You have no trust fund pool created for the benefit of WIBO? A. We can do that if it becomes necessary. We will create a trust fund for WIBO. If the Commission thinks it is necessary to do it, we will be glad to do that.

Q. Why did you take WIBO out of a separate corporate existence and pour it into your bond business if it was not for the purpose of helping it to carry your bond business? A. Just to carry them all under one company. Nelson Brothers Bond and Mortgage Company were using WIBO as an advertising medium, and it was owned by Nelson Brothers personally. We felt that it would be a better plan to have it all as one company. At the time we took WIBO over it was losing money. It was not making money.

Q. Is it not true that the income from WIBO is helping to carry your bonding company? A. No. We have not paid over a dollar to the Nelson Brothers Bond and Mortgage Company.

Q. According to your methods of bookkeeping? A. No.

Q. How much did you say your total monthly net
832 income from WIBO was? A. Net? Since last September it has averaged from $1,000 to $11,000 monthly, that is, taking it from September up to date. Some months we have run $11,000; other months $9,000, and so forth.

Q. At what have you valued your land, buildings and equipment? A. Everything is in at cost here except the $97,000. This is the actual cost of Radio Station WIBO.

Q. What have you put in your land, buildings and equipment at? A. At cost.

Q. What are you carrying it on the Nelson Brothers Bond and Mortgage Company books at? A. Total fixed assets of $291,735.63.

Q. Can you give a statement as to how WIBO made $325,954.27, as shown by your balance sheet? A. Yes.

Q. How did you make it? A. How do you mean, "make it"? This is carried at cost. In other words, it has cost, to date, $346,362.99, less the reserve for depreciation of $54,627.36. The total fixed asset in WIBO is $291,735.63. That is the cost. On an earnings basis it is worth between $500,000 and $700,000.

Q. What has that got to do with—— A. Taking a basis of 7 to 1, figuring it on an earnings basis at this time.

Q. What has that got to do with the surplus? A. Not anything.

Q. What do you figure your surplus? What have
833 you put the surplus at, according to your figures? A. $325,954.27.

Q. How do you get that? A. There is cash on hand, February 28, 1931, $8,233.42; notes receivable $809.22; accounts receivable $38,479.18; bonds receivable $280; liquid assets of $47,801.82.

Q. That is liquid assets? A. Yes. That is the total current assets. Other assets, accounts receivable, suspense, $16,642.26.

Q. What is that? A. I don't know exactly what that would be.

Q. Are they your accounts, or accounts from the Nelson Brothers Bond and Mortgage Company? A. These are all accounts of WIBO.

Q. How are you so sure about that, when you do not know what they are? A. I do not know the exact accounts. They may be accounts that are slow in paying, or there may be some other reason for their being charged off. Prepaid insurance, $1,540.75, leaving total other assets of $18,183.01. That would be our assets.

Q. Now, drop back down here and tell me again what your surplus is. A. Net worth—it does not show
834 any surplus—net worth, $325,954.27.

Q. Then, you have your net worth as made up of television stock—— A. Television stock is not in there.

Q. You have your net worth, made up of those buildings and your accounts receivable, and what else? A. In WIBO? The only building is the radio station building, at Desplaines, and 20 acres of ground. That is the only asset in there. We bought 20 acres of ground between Park Ridge and Desplaines, and built a modern transmitting plant. That is the only building that is considered an asset in this statement. All other buildings are owned by Nelson Brothers Bond and Mortgage Company. With respect to the building we are located in, a three-story concrete structure, 6312 Broadway, WIBO pays rent to Nelson Brothers Bond and Mortgage Company for the space in that building. We occupy two floors of that building.

Q. Do you use cost or appraisal values? A. We pay Nelson Brothers $1,000 a month rent.

Q. You pay yourself $1,000 a month rent? A. They are carried entirely separate. We pay Nelson Brothers $1,000 a month rent, for the space in the building.

Q. Do Nelson Brothers pay you for the advertising time on the radio station? A. No. There is no time used for Nelson Brothers Bond and Mortgage Company now, except the call letters.

Q. Can you think of anything else that WIBO pays
835 Nelson Brothers Bond and Mortgage Company for? A. That is all.

Q. A thousand dollars a month rent——

By Chief Examiner Yost:

Q. Do you regard that as a fair price for the rent? A. Oh, yes. The building was appraised, within the last month, at $275,000, and we lease the first floor, which is the most valuable. We consider that worth between $1,000 and $1,200 a month, although it is not leased for that now. We did have it rented at that figure at one time. The second floor we use back to the television space. They pay $262 a month, and then recently we have taken over the entire third floor for our offices and studios, and it is on the basis of $500 a month for each floor.

Q. That is about what you would expect to get for it from some one else outside? A. Yes. During the present depression we possibly could not lease it for that amount.

By Mrs. Willebrandt:

Q. Compared to the rest of Nelson Brothers Bond and Mortgage Company balance sheet, these bookkeeping figures you have given for WIBO bear what relationship, what percentage, or proportion of worth? A. I don't know exactly.

Q. Well, you have down there for the radio station, on that book, a surplus of what, or a net worth of what? A. A net wroth of $325,954.27.

Q. Is that a small item of your Nelson Brothers Bond and Mortgage Company net worth? A. No; I
836 would not say it was a small item.

Q. For your Nelson Brothers Bond and Mortgage Company you have, in accounts receivable January 31, 1931, $2,348.65, have you not? A. I do not know, I have not the statement here.

Q. You have, as your total assets, $273,906.63. A. Our total assets? No. That is impossible.

Q. I do not mean total assets; total current assets. A. That is possible, yes.

Q. And, in other assets, $210,969.98. A. That is possible. That is not included fixed assets, however, is it?

Q. In fixed assets, $654,776.30. Is that right? A. That is possible.

Q. In prepaid expenses and deferred charged, have you set up your franchise and development expense as $205,698.82? A. I don't know the exact figure. $97,000 of that would be in WIBO.

Q. Then, in putting up the franchise and development expense of WIBO you have made very much more wholesome the balance sheet for your total mortgage company, have you not? A. We consider WIBO as a very strong asset of Nelson Brothers Bond and Mortgage Company.

Q. What I was getting at is, what proportion of your total business do you consider that? A. I don't know. If you have a statement there, that probably shows just what it is.

Q. Going into the liabilities of Nelson Brothers Bond and Mortgage Company, you have $556,414.56, is that
837 about right? A. I don't know. What are the items? There are some figures we owe the banks. We owe the Central Trust Company of Illinois $140,000 now. At that time it was greater. We have paid off possibly $50,000 since the first of the year. We owe the Sheridan Trust and Savings Bank $44,000. At this time we owe accounts payable of $7,000, and I do not know what the other items would be. I am not directly in touch with Nelson Brothers Bond and Mortgage Company every day. I have not been there since November 1929. My job was to make this thing pay, to take it from red figures and bring it into black, and I have accomplished that.

Q. Has WIBO earned $325,954.27 profit since Nelson Brothers Bond and Mortgage Company took it over? A. No.

Q. If not, what makes up the difference between earned profits and net worth, as you have shown? A. As I explained before, it is a matter of cost. WIBO is carried on the books of Nelson Brothers Bond and Mortgage Company at the cost of WIBO.

Q. Then, would you say that it is not an inflated appraisal figure? A. I have rejected an offer that would more than cover that figure.

Mr. Cook: That is, an offer to purchase?

The Witness: An offer of purchase of WIBO. I think there are men in this room that would possibly pay
838 that amount for it.

By Mrs. Willebrandt:

Q. The Chicago Evening American? A. No; the Chicago Evening American have made no offer to purchase WIBO.

Q. Anybody for them? A. No.

Q. Are you here as the representative of anybody else? A. Just to protect the interests of WIBO, that is all. I am very much interested in that.

Q. So that you can maintain in your company these appraisal figures on your balance sheet? A. Maintain what?

Q. These appraisal figures on your balance sheet. You say you did not earn that net worth. Then, it is appraised net worth? A. Appraised net worth.

Q. You maintain those appraisal figures on your net worth balance sheet, do you not? A. Yes.

Q. Are you familiar with the cost of a new 1000-watt RCA or Western Electric transmitter? A. No, I am not. Of course, our transmitter was built for 7500 watts, and our power was cut down in the reallocation of stations to 1500 watts daytime and 1000 watts night.

Q. You are aware that the cost of installation is somewhere around $40,000? A. I have no idea of the value of a 1000-watt transmitter.

839 Q. Even if an additional $60,000 were allowed for further equipment, how do you figure your investment to be more than $100,000? A. I am figuring what it cost. That is the cost of WIBO to date.

Q. That is the way you get this appraisal figure? A. If it is an appraisal figure. It is the amount of money that we have invested in Radio Station WIBO. We may have spent more money than we should for land. We bought 20 acres, in place of buying one or two. We think that is of value out there. We built a very fine building. We may have been foolish in spending more money than we should in building this beautiful brick structure, with rooms for our engineers, and so forth. That might have been a foolish move on our part, but I don't believe so. I think it is money well spent.

Q. I am getting at your cost. A. This is the cost.

Q. You say you do not know how much a transmitter costs? A. I know what ours costs. This is what ours cost, what WIBO cost. I don't know anything about the cost of an RCA, Western Electric, or any other. This is exactly what we have paid for our equipment.

840 By Mrs. Willebrandt:

Q. You built this transmitter when? A. We started building in 1924.

Q. You say that it cost you what? What was your total figure? A. The total cost of land, buildings and equipment was $346,362.99. We have set up a reserve of——

Q. That is not in the picture at the present moment. Keep to the $346,000 you have put in. That is your

841 total cost in 1924 and 1925? A. That includes our acreage, buildings, ground, studios, offices, furniture, and everything.

Q. How much depreciation is there on that? A. That includes also our equipment at Broadway, and down at the Hearst Building; also over at the Chicago Theatre, and all our amplifying equipment, and all that sort of thing. We have as many as 15 outside amplifiers.

Q. Now, you have your land and equipment in there at $195,116.89, is that right? A. On this statement here, land, buildings and equipment are $346,362.99.

Q. Let us break those down. Land and equipment, $195,-116.89—— A. That is not shown in my figures here.

Q. I am trying to get at how you got your figures. A. I could not tell you. I am willing to send a statement down to the Commission, a certified public accountant's statement, as to exactly how this is arrived at. I cannot tell you. I did not personally make this statement here, this balance sheet. It is all included—land, buildings and equipment, $346,362.99.

Q. Is that about the statement that you gave to the National Service and Appraisal Company, or Hills Reports, Incorporated? A. I have no idea. I did not give any report to them.

Q. This report, if you did give it, only has the advantage of the totals that you are giving. I was interested in having them broken down. I am trying to get at—— A.
842 I could not break them down intelligibly from this sheet.

Q. You have no idea how any of those figures you have been testifying about have been arrived at?

Mr. Cook: That is not a fair question. He brings in a statement from a certified public accountant, and he shows it. If counsel for the applicant has other and better information, in the sense that it is in more detail, let its source and origin be stated, and then questions asked regarding that. It does not do to charge the witness with ignorance because he has not detailed figures before him.

Chief Examiner Yost: The witness has stated that he has no personal knowledge of just how the total figures are arrived at, but the Examiner understands he states that in his opinion the total values arrived at and the total worth of the station, as they are set forth, in his opinion are correct.

A. Absolutely correct.

By Mrs. Willebrandt:

Q. How do you know they are correct? A. Mr. Johnson, of Thulin and Company, was instructed by E. S. Nelson to take the figures from the books of WIBO and prepare this statement so that I could take it with me to Washington.

Q. Did you give him any instructions as president of the Nelson Brothers Bond and Mortgage Company? A. I gave him no instructions. I simply said what I wanted; and also there was a judgment search, because there
843-847 was a question raised down here at the last hearing. A judgment search of Nelson Brothers Bond and Mortgage Company was made, and the statement of WIBO——

Q. How much of that figure would you judge, as the president of Nelson Brothers Bond and Mortgage Company, you have counted in for franchise and development? A. $97,000 is about the figure that is included in there for franchise.

Q. How much for land and equipment? A. That would be the balance.

Q. You say Television and Radio stock are not in that figure? A. Not in that, no.

Q. Have you the financial statement of the Nelson Brothers Bond and Mortgage Company as of January 1, 1931? A. I have not.

Q. Have you looked at one lately? A. No, I have not.

Q. Do you know whether this account shows bank accounts overdrawn? A. I don't know.

Q. Do you know whether it shows that accrued interest is due and payable? A. No, ma'am.

848 By Mrs. Willebrandt:

Q. Now, Mr. Nelson, I will ask you if you are the president of Nelson Brothers Bond and Mortgage Company. A. Yes.

849 Q. As such, do you have charge of the employes of the company? A. Of the Nelson Brothers Bond and Mortgage Company?

Q. Yes. A. No, ma'am.

Q. What are your duties with respect to the presidency of that company? A. Since 1929 I have devoted all my attention directly to Radio Station WIBO. My office is lo-

cated at 6312 Broadway. Earl S. Nelson handles all the matters pertaining to the Nelson Brothers Bond and Mortgage Company. I simply attend directors' meetings, and so forth.

Q. What is his relationship to the company? A. He is vice president and treasurer.

Q. I will ask you to state the total assets you had in the bank from the Nelson Brothers Bond and Mortgage Company, as of January 31, 1931, when you have put in evidence the rating by Bradstreet. A. The total assets we had in the bank?

Q. Yes. A. I don't know the total.

Q. Have you brought any figures from which you can refresh your recollection? A. No, ma'am.

850 Q. I will ask you whether you know the assets, the total assets in accounts receivable, other than current assets, of the Nelson Brothers Bond and Mortgage Company as of the same date. A. I could not tell.

Q. Have you any documents or papers from which you can refresh your recollection and state that fact? A. I have not.

851 By Mrs. Willebrandt:

Q. I will ask you if you can state what the figure was of principal and interest paid by the Nelson Brothers
852 Bond and Mortgage Company as of the date of January 31, 1931. A. The interest that we paid on the mortgages that we had sold?

Q. Yes; what your books would show with respect to that figure. A. I think that figure showed, towards the last of the year, somewhere in the neighborhood of $90,000. That would include interest that we had paid, and prepayments on mortgages that had come due, on buildings that we later took over, and, of course, that absorbs that in the building value, you see. We are not legally responsible or legally liable to pay any interest, or principal amount, to any mortgage buyer. That is not a liability of Nelson Brothers Bond and Mortgage Company.

Q. I mean interest paid to you. A. Interest paid to us is directly paid on the coupons, on the first mortgage interest notes presented for payment.

Q. How much would that figure show? A. That shows a good many thousand dollars a month paid out. I have no way of determining that.

Q. You have income from interest, have you not? A. I suppose there is some, before it is paid out again.

Q. Do you know what that figure would be? A.
853 That would be very small, because the interest coupons, as they become due, are immediately paid, and during the past two years the owners of buildings are not paying their interest before the due date.

Q. Can you give the amount of land, buildings and equipment, the total for the Nelson Brothers Bond and Mortgage Company, as of that date? A. Somewhere in the neighborhood of $500,000 to $600,000.

Q. I will ask you whether you know what the books of the Nelson Brothers Bond and Mortgage Company will show for franchise and development expense as of the date in question. A. I think we covered that. It was $97,000 for WIBO, and $100,000 for Nelson Brothers Bond and Mortgage Company, or such a figure. You have the figure on that.

854 Q. I will ask you what the amount of the total assets of the Nelson Brothers Bond and Mortgage Company was as of the date in question, if you recall that figure. A. I do not.

Q. Now then, in total current liabilities of the Nelson Brothers Bond and Mortgage Company as of the date in question, can you give me the figure for that? A. No, I can not.

855 Q. I will ask you whether you have here with you any facts or figures, or a present recollection as to the total liabilities of the Nelson Brothers Bond and Mortgage Company as of the date in question. A. I have not. I have not the figure here.

Q. Do you have any present recollection whether your total liabilities are $1,347,352.17? A. I don't know what the figure is, Mrs. Willebrandt.

Q. I will ask you whether, as of September 18, 1930, you recall what the total assets of the Nelson Brothers Bond and Mortgage Company were. A. No, ma'am, I do not.

856 Q. I will ask you whether you recall, whether you know, or whether you have with you any document

that can show what the total liabilities of the Nelson Brothers Bond and Mortgage Company were as of September 18, 1930. A. No, I have not. I have not any of the figures of Nelson Brothers Bond and Mortgage Company with me.

Q. I will ask you whether the figure of $1,546,180.31 is correct. A. I could not state whether it is or not.

By Chief Examiner Yost:

Q. Are you prepared to show what the approximate net worth of Nelson Brothers Bond and Mortgage Company is at this time? A. I believe between $750,000 and $800,000.

Q. Are you prepared to say what the approximate indebtedness of Nelson Brothers Bond and Mortgage Company is at this time? A. I can give you the figures on what Nelson Brothers Bond and Mortgage Company owe. It owes to the Central Trust Company of Illinois $140,-
857 000. We owe to the Sheridan Trust Company at this time $40,000. We owe somewhere in the neighborhood of $7,000 on accounts payable, and I believe that with respect to building contractors, and so forth, we have completed every building, so far as I know. So far as I know, that is all paid now. There is no liability to contractors. That is the total amount we owe to the banks, and accounts payable, as of a later date. Then, during the past two years, there was the time that our directors advanced possibly $30,000 for security. That is possibly still in, but is being paid. Of course, the bank loans are secured by first mortgages, at least two to one. On the amount we owe, there is double the amount up as security. The Central Trust Company and the Sheridan Trust Company are perfectly willing to loan us more money if we need it.

Q. On the same collateral? A. On the same collateral. We have paid off, and left some of the collateral in the bank. Mr. Boyd happened to go with me to the Central Trust Company, as this question was raised here by judgments, as to the stability of Nelson Brothers Bond and Mortgage Company, at the last hearing, by Mr. Smith. We thought it would be a good idea to check up a little. Mr. Boyd was with me at the Central. I asked them to prepare a letter for me and address it to the Federal Radio Commission, which they did, and in Mr. Boyd's presence they said that we could borrow—if we needed any money—$50,000 or more. That is true of the Sheridan Trust. So,

so far as operating WIBO is concerned, we are willing, if it becomes necessary, to establish a trust fund of
858 $100,000 for the protection of continuing the service to the public of our station. We can do that.

By Mrs. Willebrandt:

Q. You stated that WIBO, prior to transfer to the Nelson Brothers Bond and Mortgage Company, was owned by you and your brother personally, did you not? A. Yes.

Q. The license was in the name of WIBO, Incorporated? A. It was WIBO Broadcasters, Incorporated, but we had all the stock of WIBO Broadcasters, Incorporated. We had purchased the stock.

Q. What price did you pay for that stock? A. We paid the amount of money that they had invested. They could not carry the load, and we kept advancing more and more money to WIBO.

Q. How much was that? A. I don't remember the figure. That is several years ago.

Q. How is it that you can remember so accurately the figure—— A. The two figures are possibly $22,000 or $23,000, to both Dan and Ted.

Q. How is it that it was only two figures of $22,000, when now you have it in your accounts at $346,000? A. That was when we had a 500-watt transmitter, and after that time we built up to a 7500-watt transmitter, and then, when the reallocation of stations took place, we moved out to Desplaines, Illinois, and bought ten acres of ground, and built this new building. We have been down to Washing-
859 ton at least four times a year, and we are down here now, and this is also costing money. So, it has cost us a great deal of money since that time.

Q. This present cost is in the $346,000? A. Oh, no. That will be taken out of profits this time. Thank the Lord for that.

Q. I believe you testified in the former hearing that all judgments had been satisfied. A. Except one I did not know about.

Q. What is that one? A. There was a judgment entered against Nelson Brothers Bond and Mortgage Company October 30, 1928. There had been an accident in our building, 6312 Broadway. A youngster slid out on the elevator and

fell down the elevator shaft. It was absolutely no fault of the building, and he was a trespasser there, and slid out on the elevator, and was laid up for a good many weeks, and lost part of his right hand. We were sued. The Nelson Brothers Bond and Mortgage Company, who own the building, were sued for something like $100,000, and we decided we would rather settle, and we settled the amount for $15,000, $10,000 cash, and the balance in trust with the Foreman State Trust and Savings Bank, payable $100 each month. That shows a balance at this time, under date of April 14—I will read the letter, addressed to Nelson Brothers Bond and Mortgage Company, 134 North La Salle Street, Chicago. (Reading:)

860 "In re Estate of Jerome Harvey Simons, "Guardian, 3868.

"GENTLEMEN:

"Regarding judgment in favor of the above for $15,000, at the present time our records show that $13,300 has been paid. Monthly payments of $100 per month are up to date, and the balance due us from you is $1,700. We would appreciate knowing whether your figures correspond with ours.

"Very truly yours,

"PAUL WEINER,
"Trust Department."

I had a judgment search made as of April 6, 1931, and it shows that that is the only judgment against Nelson Brothers Bond and Mortgage Company.

Q. How about the Chicago Federation of Musicians? How much are you paying them a month? A. That is radio, again. Which is that?

Q. The Chicago Federation of Musicians. A. We were paying the musicians? We pay $1108 a week to our orchestra.

Q. How much of that are you repaying to the Chicago Federation of Musicians? A. Not any.

Q. Because of alleged repayments by the musicians back to your station. A. That dates back some time. In Chicago——

Q. Just the present conditions. That is all I am
861 inquiring about, and all I have any right to inquire about. A. Not any.

Q. You have it all paid up? A. Absolutely.

Q. How much did you pay? A. We paid a $3700 fine to the Musicians' Union.

Q. That was for putting on your books the Musicians at a certain amount, and then having them pay back to the station—— A. Not putting it on our books. In Chicago the requirements are very strict. That is, their fees are high, and up to a year and a half ago, or a year and probably two or three months, we were required by the Union to employ five musicians—this was in 1929—at $90 a week each. When WIOB became better known in Chicago as one of the outstanding stations, they reclassified WIBO into Class A. They have a classification, A, B and C. One station is required to have ten musicians, and another five, and another three. We were reclassified, and ordered to add five musicians. This was in 1929, and it was then showing a loss. So, instead of paying $90 to the musicians —they all swarmed in there; there are 7000 out of work in Chicago—we paid $70. We are not under contract with the Union. We just made a deal with the musicians and paid $70 a week, and more to the leader—possibly $800 a week to the ten. Some one reported to the Union—and we are not the only station; many of them in Chicago have had the same experience—that we were underpaying the musicians the difference between $70 and $90, although on our books it shows $70. The Union called the men down
862 and put in their own orchestra and fined WIBO $3700. Since that time, which is over a year now, or close to a year, we have paid ten musicians $1108 each week. We made an arrangement with the Union so that we would not take $3700 at one time, to pay $150, or something of that sort, a week, and that has been long since paid off. There is absolutely nothing due.

Q. There is nothing outstanding on that now? A. No. I think since we have been down in Washington that rate has been increased to $125 a week by the Union. With network programs, and Chicago Evening American programs, there have been weeks when we have had possibly seven or eight hours work, but we must pay that figure. I believe Chicago is the only place where we have that situa-

tion. That is a load to carry, and it was at that time. I am not complaining about it. As long as we can make the profit that we are, we are willing to pay. In fact, we have added musicians.

Q. You have nothing here that will show the financial condition of the Nelson Brothers Bond and Mortgage Company as such? A. I have not, no ma'am.

Q. You brought no books of account with you? A. No ma'am.

863-870 Q. You would be willing to furnish, for the purposes of this record, a certified public accountant transcript of the financial condition of the Nelson Brothers Bond and Mortgage Company? A. Yes.

871 **Alvin E. Nelson**, the witness under examination at the taking of recess, resumed the stand and testified further as follows:

Mrs. Willebrandt: We are through with the witness.

Redirect examination on behalf of respondent WIBO.

By Mr. Boyd:

Q. You indicated, Mr. Nelson, that you had certain documents from the Foreman Trust Company and the Sheridan Bank, and referred to them. A. The Foreman-State Trust & Savings Bank matter was with reference to the judgment that was against Nelson Brothers Bond & Mortgage Company. I just have one copy of it, which is a photostatic copy.

Chief Examiner Yost: Letters are not admissible, under the rules.

The Witness: This is a trust company judgment search.

By Mr. Boyd:

Q. You indicated on cross examination that you had offers to dispose of these facilities? A. We have had several.

Q. I will ask you if you had any offers to purchase or lease or use these facilities from Mr. Ralph Atlass,

872 one of the owners of the stock of radio station WJKS. A. We have.

Mrs. Willebrandt: I object to that. It is not within the issues in this case. The only thing that is proper in redirect examination is on matters that have been gone into in cross examination, all of which went to the way in which he set up the assets of the Nelson Bond and Mortgage Company. What was offered for property is not evidence to support figures that he testified to as to the capital assets.

The Witness: It has something to do——

Mr. Boyd: Just a minute.

The Witness: Pardon me.

Mr. Boyd: What I want to prove by this witness, in asking that question, is this, and I now offer to prove by the witness that Mr. Ralph Atlass, the owner of a half interest in station WJKS, did offer to take over the facilities of WIBO and operate it on a certain basis which I want the witness to state.

Mrs. Willebrandt: Are we trying Mr. Atlass here for some apparent feeling that this witness has against him? That is not an issue in the case. An appraisal of the property would be material if properly authenticated. These constant insinuations relative to Mr. Atlass I maintain are improper and should not be injected into the record; and I suggest that counsel's proffer of evidence shows that it is improper evidence that he offers, and I move that the remarks be stricken from the record.

873 Mr. Cook: May the witness answer the question whether offers were made to him for the station?

Chief Examiner Yost: He may answer that.

The Witness: In the summer of ——

By Mr. Boyd:

Q. Answer it directly. A. They were.

Q. What were those offers? A. In the summer of 1929 a former employee of WIBO, Walter Preston, by name, now program director of WBBM, and has been since February, 1929, called at the office, our down town office, and made an appointment for himself and Les. Atlass, brother of Ralph Atlass, and endeavored to negotiate——

Mrs. Willebrandt: May I interrupt the witness to ask that the Examiner limit the witness in his reply to just what the offers were.

Chief Examiner Yost: By Ralph Atlass.

The Witness: Ralph Atlass, some time in the summer of 1930, called me on the 'phone at the uptown office and wanted to negotiate a deal whereby he would take over the complete management of WIBO, pay all the bills, all of the cost of operation, and make an arrangement to split, that is, to allow our company one third of the net profits of WIBO. That was in the summer of 1930. I do not know whether I answered him or not. If I did, it was that I was not interested in it.

Mrs. Willebrandt: I move that that answer be stricken from the record. There is no proper foundation laid for a conversation, telephone conversations or personal
874 conversations.

Chief Examiner Yost: Did he come to see you?

The Witness: He came to see me; yes, sir.

Chief Examiner Yost: Motion overruled. It may stand for what it is worth.

By Mr. Boyd:

Q. With reference to the Swedish program and your father's connection with it: is your father a minister of the gospel? A. No, sir.

Q. Has he ever been a minister of the gospel? A. No.

Recross-examination on behalf of applicant WJKS.

By Mrs. Willebrandt:

Q. In your set-up of capital for the radio station, which I believe you testified was, in round figures, $346,000, you said, I believe, that you could not break those figures down so as to give in detail the items from which the total
875 comes? A. I said we would be willing to have our auditing firm break the figures down as of February 28 and send them to the Examiner.

Q. Would you be willing, in addition to this certified accountant's statement of the financial condition of the licensee, Nelson Brothers Bond and Mortgage Company, also have this figure of $346,000 which you carry as the value of the station, broken down so as to show under certification of an accountant the exact cost figures from which you get that amount? A. Yes, ma'am.

Chief Examiner Yost: That may be done.

Do you issue or publish a regular quarterly statement of the financial standing of your corporation?

The Witness: There is a statement that goes to Springfield every six months. That is the only statement we furnish. But during the depression the Central Trust Company wanted to check up on our standing and they sent men over and were perfectly satisfied we were in sound condition.

Mr. Cook: By the statement that goes to Springfield, you mean to the Secretary of State?

The Witness: Yes. I can get a letter from the Secretary of State and also send that down here, that Nelson Brothers Bond and Mortgage Company are absolutely sound.

Chief Examiner Yost: When was the last statement furnished to the Secretary of State?

The Witness: I do not know. That is handled by the downtown office. I am just working head over heels in radio. That is all I have done for the last two years.

876 By Mr. Cook:

Q. Has Nelson Brothers Bond and Mortgage Company had any issue of bonds or mortgages sold by them on which there has been a default of interest? A. I don't believe so. In the first place, Nelson Brothers Bond and Mortgage Company are very conservative in the type of loan which they handle. It is the smaller buildings, not hotels or big properties. The biggest loan that was made by our firm was a hundred and sixty-some odd thousand dollars, after E. S. Nelson, who was very familiar with values in Chicago, and our directors passed on the loan which was checked on by Mr. Orlando van Gunton, a very conservative German architect in Chicago, and he would cut down the figure to an amount that he deemed to be a conservative first mortgage. So that we have very few loans that have not made the grade, even through the depression we have had. That is the reason we have been able to stay in business, as the Central Trust Company, in their letter to the Federal Radio Commission, say; also the Sheridan Trust Bank. They examined every loan that was made, and the Central Trust Company complimented us on our loans. You can get verification of that from the Central Trust Company of Illinois, because they called most of the bond companies. Our loans

have not been called. They are still willing to loan us additional capital if we need it; and that is through the toughest two years, I guess, that the country has even seen.

877 **Thomas J. Johnson**, a witness previously called and sworn, was recalled on behalf of respondent WIBO and testified further as follows:

Direct examination.

By Mr. Cook:

Q. Are these three photographs different views of the WJKS station in Gary? A. This (indicating) is a picture of the building in the rear of the building, but on this picture it doesn't show any antenna; it doesn't show the counterpoise. It starts to show the wire running up in here (indicating).

Q. You mean, they do not appear in the photograph? A. I mean, they have been taken off. Here (indicating) is a wire that started to show, right there. Here is part of it in here (indicating).

Chief Examiner Yost: It seems to you that the photographer has removed those?

The Witness: It is very evident.

By Mr. Cook:

Q. Or could it be that it simply did not take in the negative? A. That couldn't be.

Q. And with that comment you identify that as a picture of your radio station? A. This in here (indicating) is the generating room.

Q. At the extreme end of the building? A. Yes.

878 Q. Nearest the left hand antenna tower? A. Yes. In here (indicating) is where the motors are; and in here (indicating) is the studio. This (indicating) is the station building itself.

Mr. Cook: Let that be marked, please.

(Two copies of photograph of radio station WJKS were thereupon marked "Docket 1156, Respondent WIBO Exhibit No. 18-A.")

By Mr. Cook:

Q. This is a photograph of what (handing another photograph to the witness)? A. That is another view of one of the towers.

Q. What buildings are immediately back of that tower? A. This is the room where the motors are (indicating).

Q. The room nearest the antenna tower? A. Yes.

Q. And the building which it shows is what? A. This is the engine room and the studio back in here (indicating).

Q. So that the small building nearest the antenna tower is the generator room? A. Yes.

Q. And the building back of it to which it is attached is the studio and power plant? A. Here is the power plant (indicating). This wire here (indicating) would indicate that it was cable. That is only ordinary wire. It does not run in there (indicating).

Q. Is there a counterpoise supposed to be attached that does not appear? A. Yes.

879-883 Q. To the projection to the left of the antenna tower? A. Yes.

Mr. Cook: Mark that photograph, please.

(Two copies of a photograph showing antenna tower and part of transmitter buildings were thereupon marked "Docket 1156, Respondent WIBO Exhibit No. 19-A.")

The Witness: That wire is a great deal heavier wire. It must have been traced over.

By Mr. Cook:

Q. Is this (exhibiting) a general photographic view of the premises known as Gay Mill Gardens? A. Yes, sir.

Mr. Cook: Mark that photograph, please.

(Two copies of a photograph of Gay Mill Gardens were thereupon marked "Docket 1156, Respondent WIBO Exhibit No. 20.")

884 Chief Examiner Yost: The Examiner is of the opinion that the statement of the certified public accountant should be furnished the Examiner as a part of the files of this case, and requests the attorneys or
885 the president of Nelson Brothers Bond and Mortgage Company to furnish such a statement.

Mr. Cook: Nelson Brothers Bond and Mortgage Company will furnish a certified public accountant's statement of the position of the company as of April 30, this day, which will bring it down absolutely to the submission of the case.

886-890 Chief Examiner Yost: The Examiner understands that similar statements will be furnished by both the respondent and the applicant showing the financial condition as of this date.

891 Mrs. Willebrandt: There is one thing left outstanding in connection with the record—nothing further in the way of testimony—and that is the ruling on the depositions. In that respect, when the depositions were offered I believe there was no ruling as to whether they would be admitted.

892 Chief Examiner Yost: That is correct. Has any action been taken jointly by counsel with reference to taking depositions?

Mrs. Willebrandt: The offer was made as to a time and place, during this hearing, or at any other time, but no reply has been received.

Mr. Newman: Do counsel present agree that in the usual course of the United States mails the letter containing this notice should and would have been received normally on Monday morning in Chicago? Was that agreed by the parties present or not? Because if that was agreed, it then becomes only a matter for the Examiner to decide whether or not the receipt of that particular document on Monday morning at 9 o'clock was sufficient time. Certainly if that was not sufficient time, it would not be sufficient time if it had been delayed until 2:30.

Chief Examiner Yost: If it is agreed that the letter was received at the office Monday morning, of course there is no difficulty presented to the Examiner. But he does not understand that there is any such agreement.

Mr. Newman: Do you mean to indicate that you would consider Monday morning sufficient time?

Chief Examiner Yost: Yes.

Mr. Cook: The fact testified to was that this came to the attention of Mr. Nelson at 2:30 in the afternoon. At that time he received his first knowledge that the notice was out.

Mrs. Willebrandt: His own office stamp shows at
893 9 o'clock in the morning.

Mr. Boyd: I have explained that the time arrangement on that stamp is not working and has not been working for some time. The 2:30 time was put on by their boy.

Mr. Nelson: The boy in the office that receives the mail. We can get a statement from him. Furthermore, it shows 7 o'clock. I don't know whether p. m. or a. m. I can get a sworn statement from our mail clerk showing just exactly the time, because he brought that right into the office.

Mrs. Willebrandt: He is not here?

Mr. Nelson: No, ma'am.

Mr. Cook: Laying aside the matter of time of receipt of the notice and the other elements that go with it, the distance from the point of deposition-taking, does the Examiner keep in mind that the depositions show no signature of any witness thereto?

Mrs. Willebrandt: It shows the certification of the notary that each witness was sworn.

Mr. Boyd: Or does it show that the witness has read it after it was transcribed, after it was reduced to typewriting, and that he then signed it?

Mr. Cook: In the presence of the notary?

Mrs. Willebrandt: That is a requirement in some states, but not in Federal courts. It is optional in a court of equity. The rule is that in the absence of a charge of fraud a certification of the notary named in the commission of the court that the witnesses appeared, were sworn and thereupon answered as follows, is receivable. The only time it is not is when there is a charge of fraud.

Mr. Clifford: Is the Examiner of the opinion that
894 in serving a notice upon a respondent or upon an applicant on behalf of a respondent, that if the notice is received in the morning and the depositions are to be taken at a place 40 miles away, beginning at 1 o'clock that day, that would be sufficient time? We are making precedents, and I am practicing before the Radio Commission, and I would like to know about that. It seems to me that would be entirely adequate, because I notice in the rules of practice there is no time requirement as to how much notice in advance is necessary. But I can hardly believe that the Commission, when it adopted these rules of practice, would say that a notice given in the morning

to a person that depositions were to be taken 40 miles away at 1 o'clock would be sufficient notice.

Chief Examiner Yost: The Examiner would feel bound in a sense by the action of the Commission. The Commission granted the request and authority to take the depositions with a full knowledge of the time and of the place where they were to be taken, and the distance from Washington. If the Examiner is satisfied that the notice was delivered to the office of Nelson Brothers Bond and Mortgage Company he will admit the depositions and give them such consideration as he feels they are entitled to.

Mr. Cook: The answer to that, Mr. Examiner, is that the time is admittedly short, whatever might be——

Chief Examiner Yost: That is undoubtedly true.

Mr. Cook: I think the Examiner should keep in mind that in all trials the fairness of each side to the other is essential.

895 Chief Examiner Yost: That is why the Examiner suggests that the uncertainty be removed by taking the depositions again.

Mr. Cook: I think they are utterly improper here. We were furnished a copy of the depositions after they were first offered. I have examined them. There is material there which appears unobjected to on the transcript of the deposition. It would require a good deal of attention to those depositions in discussion before your Honor to weed out what is improper as a matter of evidence under the very rulings you have employed in the course of this hearing of witnesses in open court. I think that the admission of these depositions at the present time would establish a dangerous precedent. The Commission may consider the time adequate, but it does not add to the speed of the leg.

Mr. Clifford: I think you have made a ruling which I believe was predicated on the fact that the Commission ordered the depositions to be taken on the 17th?

Mrs. Willebrandt: They made the order on the 17th.

896 Mr. Cook: Consider this aspect, Mr. Examiner. Mr. Nelson is not an attorney. He received a notice addressed to his company advising him that depositions were to be taken. He had to secure the attendance of his counsel. Counsel cannot stand beside their client at all times. It happened in this case that Mr. Boyd, counsel of

record for the respondent, was in Washington. He was immediately communicated with, and as I recall it, it was then 3 o'clock in the afternoon, and the deposition was already on.

Chief Examiner Yost: The Examiner desires to make it clear that in his statements heretofore in this connection he would hold the notice sufficient if it were proved that it was delivered in the first mail on Monday morning, because that would be the first mail on which it could be delivered.

Mr. Clifford: I beg your pardon, but the order was granted on the 17th. Any special delivery or air mail letter sent from here on the 17th should have been received in Chicago on the 18th.

Mrs. Willebrandt: It was late in the afternoon.

Chief Examiner Yost: Of the 18th?

Mrs. Willebrandt: Late in the afternoon of the 17th and too late to get it out. They were mailed on the morning of the 18th.

Mr. Clifford: But it was not too late for air mail that night.

Mrs. Willebrandt: The Commission issued its order after 3 o'clock.

Chief Examiner Yost: The Examiner saw the 987 stamp. It was the 18th.

Mr. Clifford: Yes, mailed by the attorney, not by the Commission. The Commission gave no notice in this case whatever. Am I right in that?

Chief Examiner Yost: It was mailed Saturday, the 18th. The Examiner is discussing the fact that it was not mailed until Saturday. They were mailed the next day, and the first business day thereafter would be Monday morning. The first mail would be the first that could be delivered to the respondent. It is apparent to all that the time was really too short. More time should have been allowed. If there seems any disposition on the part of the parties to take depositions again the Examiner will be glad to grant authority to have depositions later taken and admitted in the case.

Mr. Clifford: I think on behalf of WPCC it would be a very fair and equitable arrangement in this case.

Chief Examiner Yost: The Examiner would be pleased to have it done in the face of the uncertainty.

898 Mrs. Willebrandt: These two things must not be lost sight of in discussing this matter, which does become important. It becomes important for the applicant in this respect. The time of notice was too short for ordinary practice. However, the Commission granted the request. It appears that the notice was mailed as quickly as possible. It appears that it was delivered to other persons who received the same notice on the first mail Monday morning. It appears, further, that the office stamp of the objector here shows that it reached his office early Monday morning. It appears that he did not reach his counsel until 3 o'clock in the afternoon, and now we are asked, after 4 days ago offering to have depositions taken forthwith, wherever the respondents might wish—we are confronted with the fact that this Examiner is urged to rule these out.

Had there been a ruling that they were not admissible, or had the Commission refused the request to take the depositions, witnesses could have been here at the hearing. The applicant is denied the opportunity of having brought those witnesses here. It would have been more expensive, it is true, but probably not more expensive to all parties concerned than the delay which might be possible in case the Examiner decides at this late date that the depositions are not admissible.

In a sense, Mr. Examiner, it seems to me that when the Radio Commission issues an order to take depositions before a sworn officer of a particular subdivision of a state, naming him, and the place of taking, he stands in the same position as any other commissioner——

899 Mr. Cook: A notary public does?

Mrs. Willebrandt (continuing): —whose authority issued out of a court.

Had even at the late date that the objecting respondent says he received his notice—had he addressed a request to the officer who had been directed by the Radio Commission to act for it in the taking of these depositions, we would have a better record here today. But that was not done, and this is too late a date to overrule the action of the Radio Commission in allowing this testimony to be taken by depositions, in view of the fact that there is so much doubt about any irregularity having existed.

Mr. Clifford: I do not believe counsel meant it when she stated that there had been no delay on her part in serving the notice. She has stated herself that the Radio Commission granted her application to take depositions on Friday afternoon at 3 o'clock, on the 17th——

Mrs. Willebrandt: After 3.

Mr. Clifford: Well, what time after 3 would you say?

Mrs. Willebrandt: I think, between 3:30 and 4.

Mr. Clifford: We will say, 4 o'clock, before the close of the business day. Then she also states that notices were mailed from her office at 3:30 Saturday afternoon to these people in Chicago.

Mrs. Willebrandt: No, in the forenoon.

Mr. Clifford: I do not like to be critical at all, but I think that the time was too short, and I think the applicant should have notified the respondents by telegraph or telephone or by air mail or by special delivery letter im-
900 mediately, on Friday. They knew before the close of business, so that we could have had at least notification on Saturday to get ready to take depositions on Monday.

That is the reason I am making my objection, and I hope—I want to put this for the future so that it will not come up again—there will be some ruling or disposition as to the time within which counsel must be notified, by the rules of the Commission. I say that this was not a reasonable time, and the rules meant that there should be a reasonable time. The place at which the depositions were to be taken was 40 miles away. This was not a reasonable notice to anybody to take depositions.

Mr. Cook: If your Honor please, I have examined these depositions, and they are full of the kind of evidence that would be objected to by any counsel. Let me illustrate——

Chief Examiner Yost: Why can not we settle this matter by having depositions taken again? The Examiner feels warranted in making that request, in view of all the circumstances in connection with the depositions. Why can they not be taken?

Mr. Boyd: I think we are required to meet these depositions, if they are admissible, and any matter contained therein. We should be permitted to take depositions for the purpose of rebutting the statements made.

Mrs. Willebrandt: That is the real purpose of the objection.

Mr. Boyd: I think depositions are allowed only in exceptional cases.

Chief Examiner Yost: The fact remains that the
901 depositions were taken without the presence of representatives of the respondents.

Mr. Cook: I think this case has been tried before your Honor for six days, and if there is anything that can be put into depositions in the city of Gary that will add to your knowledge of the issues here presented, it would be beyond the rules and regulations of the Commission which say that in exceptional cases depositions shall be taken. I think it would only encumber the record.

Mrs. Willebrandt: Why didn't counsel, then, move to quash this order to take depositions?

Mr. Cook: We never heard of it until Monday. On Friday you applied for the order. We were not advised by telegraph or otherwise that the shooting would start in in Gary at 1 o'clock on the Monday following. The thing was already in performance before we had a chance to quash.

We were shot before we knew the gun was loaded.
902 Examining all of these depositions that were taken, I find questions put to individual witnesses, utterly improper, asking the witness to decide one or more issues in the case. I say that a repetition of that kind of depositions is going to waste time and delay the trial, postpone judgment, and add to the general misery.

Mrs. Willebrandt: Mr. Cook is right. I think we will get through more quickly by going through these depositions and by a stipulation removing from the record any objectionable testimony. These having been taken before a notary public, of course there are objectionable things in there. We will stipulate——

Mr. Cook: I think the whole thing ought to be dropped. I see no reason for adding to several thousands of pages of proof more of that kind of stuff, and making the Commission itself, if it should ever come to it, or his
903 Honor the Examiner, go through that kind of depositions. They are worthless for the purposes of the case. That is no reason to say, "Well, let us run them through the mill." I think there is no use in it. If the

Examiner wants to read them, he can, but I do not think they ought to be made a part of an orderly record.

Chief Examiner Yost: If it is stipulated that no further requests shall be made on the Federal Radio Commission for authority to take depositions in connection with this hearing, the Examiner reserves ruling on the admissibility of the depositions here offered. There is no use of any further discussion in that connection.

Mr. Newman: I would like to know now if they are going to be considered, and whether Mrs. Willebrandt will stipulate with myself that what is considered material and immaterial shall be left up to you.

Is that agreeable with you, Mrs. Willebrandt?

Mrs. Willebrandt: Yes.

Mr. Newman: In view of the fact that depositions ordinarily take a great deal of time to read and object to and scrap over, and in view of the fact that we do not usually have time to do it, that has been the custom in the past. That is agreeable with you?

Mrs. Willebrandt: That is satisfactory.

904 Mr. Clifford: That is all right.

Chief Examiner Yost: The Examiner will say that the parties entering appearances in this case will be given an opportunity, in conformity with the provisions of sub-title D, Section 4, subdivision (b) to submit any exceptions or written arguments that they may wish to file within a period of 15 days from the mailing of the Examiner's report.

Mr. Newman: The applicant and respondent were both, under your direction, to submit public accountants' certified statements of the condition of the two respective companies. I recall that in the instance of WIBO it was to be of January first, and then it seemed, according to your ruling, that in the case of the applicant station it was to be as of today. Did you mean that difference in time?

Chief Examiner Yost: Mr. Clifford stated it would be as of today.

FOLDOUT(S) IS/ARE TOO LARGE TO BE FILMED

911 APP. EXHIBIT 5.

912 Federal Radio Commission. Mar. 14, 1931.

Form No. -37-B.

Acknowledged 3/31/31.
M. L. B. Smith —.
File No. —. Official No. 543. Call Letters: WBBM-WJBT. Class of Service: ——.

Federal Radio Commission.

UNITED STATES OF AMERICA:

Application for Renewal of Radio Broadcasting Station License.

(Submit in Duplicate to District Supervisor of Radio in Charge of District in Which Station is Located. Swear to One Copy.)

To the Federal Radio Commission:

1. Name of applicant*: Atlass Company, Inc.
2. Post-office address: State, Illinois. City, Chicago. Street and number, 410 N. Michigan Ave.
3. Citizenship: Illinois Corp.
4. State whether applicant is a corporation, partnership, or association: Corporation.
5. If applicant is a corporation, state—(*a*) Under laws of what State it is organized: Illinois. (*b*) May more than one-fifth of capital stock be voted by aliens or their representatives, or by a foreign government or representative thereof? No. (*c*) Is any director or officer an alien? If

*If a corporation, state corporate name; if a partnership, state names of all partners and the name under which the partnership does business; if an unincorporated association, state the name of an executive officer, the office held by him, and the name of the association. The same name or names should be signed in the place provided at the end of application, except that in the case of a partnership the application may be signed in the name of the partnership by one of the partners. This application must be executed and signed in the name which appears on the license for which renewal is requested, unless there has been an assignment of the license with the written consent of the Commission.

so, state his name and position: No. (*d*) If applicant is a subsidiary, state name and address of parent company and under laws of what State or country parent company is organized: Columbia Broadcasting System, a New York Corporation. (*e*) Whether stock is to be sold for the purpose of raising money to operate station: No.

913-925 6. State fully the facts showing applicant's financial responsibility with respect to operation of this station: WBBM has been successfully operated under same management since 1923. No outside financing ever requested or used. References: Boulevard Bridge Bank, Chicago; First National Bank, Chicago.

7. Is applicant a representative of an alien or foreign Government? No.

8. Has the applicant, since February 23, 1927, been finally adjudged guilty by any Federal court of unlawfully monopolizing, or attempting unlawfully to monopolize, radio communication through control of manufacture or sale of radio apparatus, exclusive traffic arrangements, or any other means, or of unfair methods of competition? No.

9. State applicant's relation to station (whether applicant is owner or lessee, and if not, nature of applicant's interest in use and control of station): Owner.

10. If applicant is not owner of station, who is? Applicant.

11. File number and date of license sought to be renewed: File #4-ML-B 762. 543 modified as of February 27, 1931.

12. The existing license authorizes the use of: (*a*) Frequency, 770 kilocycles; (*b*) Power output for daytime operation, 25,000 watts; Nighttime, 25,000 watts; (*c*) Hours of operation, Full daytime, 4/7 night, as attached agreement; (d) Call letters, WBBM-WJBT.

13. Under existing license, state (*a*) Average per cent of time weekly, devoted to following services: (1) Entertainment, 87; (2) Religious, 2¼; (3) Commercial, 39¾; (4) Educational, 16½; (5) Agricultural, 6; (6) Fraternal, ——; (7) ——; (*b*) Average number of hours per month station has operated during present license period: 470; (*c*) Does applicant sell time? Yes; (*d*) If applicant does not sell time, how is station supported? ——; (*e*) Number of weekly hours of sponsored programs is 42½; of direct

advertising programs is none; (*f*) Are merchandise prices quoted in interest of applicant? No; or others? Yes. Restricted.

* * * * * * *

925½ 30. Does station obtain programs from what is known as a "chain"? Yes; (*a*) Name of chain, Columbia; (*b*) What is total hours per week of chain programs (i. e., programs, both paid or sustaining, which are duplicated by any other station)? 32¼.

31. (*a*) Attach printed program for week last preceding date of this application.

926 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Wednesday, February 25, 1931.

(Morning.)

7:30 A. M.	CBS—Tony's Scrap Book.
7:45	Barton Organ—Al Melgard.
8:00	Farm Information—Official News and authentic farm information from leading agricultural colleges and Department of Agriculture, U. S. Government.
8:05	Smile Club—Al Melgard, organist, musical request program.
8:15	CBS—Pertussin Playboys.
8:30	CBS—Morning Moods.
x9:00	Climalene Dance Program.
x9:30	Burnhams Beauty Chat.
9:45	CBS—Sewing Circle.
10:00	CBS—"Five Minute Meals" by Ida Bailey Allen, by George Hormel Company.
x*10:15	Beauty Mould.
x10:30	Julia Hayes Household Hints.
x*11:00	Charis Players.
x11:15	News Flashes from the Daily Times.
x*11:30	Clem & Harry.
11:45	Maxey Church Organ.
12:00 to 1:00 P. M.	CBS—Farm Community Network.
12:00	Health for the Whole Family—A. M. A.

*Changed from last week.

12:05 Poet's Hour—Mr. Owen.
12:25 Local Markets Produce.
12:35 Band Concert—Comedy Script and Orchestra.
12:55 Farm Belt Headlines—Pertinent News for farmers.

927 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Wednesday, February 25, 1931.

(Afternoon.)

1:00 P. M. Henri Gendron's Orchestra—Rialto Gardens.
1:15 CBS—Columbia Artists Recital.
1:30 Henri Gendron's Orchestra.
x2:00 Burnham's Beauty Chat.
2:15 Daily Times News Flashes from the Daily Times.
2:30 CBS—Syncopated Silhouettes.
3:00 CBS—Musical Album.
3:30 Maurie Sherman's Orchestra—Hotel Sherman.
4:00 Chicago Hour of Music, organ and vocalists.
4:25 Grain Markets.
4:30 Maurie Sherman's Orchestra.
4:50 Illinois Federation of Women's Clubs and organ.
x5:00 Hickory Circus.
x5:15 Curtiss Treasure Hunt.
x5:20 Daily Times News Flashes and stock market reports.
5:30 CBS—Winegar's Orchestra.
x5:45 CBS—Eno Crime Club.

928 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Wednesday, February 25, 1931.

(Evening.)

6:00 P. M. Henri Gendron's Orchestra—Rialto Gardens.
6:30 CBS—Forhan's program—Evangeline Adams.

6:45	Off the Air until 8:00.
8:00	Ben Bernie's Orchestra—College Inn.
8:30	Leon Bloom's Concert Orchestra.
9:00	Paul Whiteman's Orchestra—Granada Cafe.
x9:30	Along the C. & E. I. Trail.
10:00	Off the Air until 11:15 P. M.
11:15 to 2:00 A. M.	"Around the Town." Nightly dance program presenting famous orchestras including:
11:15	Ben Bernie's Orchestra—College Inn.
11:45	Paul Whiteman's Orchestra—Granada Cafe.
12:15	Henri Gendron's Orchestra—Rialto Gardens.
12:45	Coffee Dan's—Frank Shaw.
1:00 A. M.	Ben Bernie's Orchestra—College Inn.
1:30	Paul Whiteman's Orchestra—Granada Cafe.

929 WBBM Air Theater—Wrigley Building—Chicago.

Program, Thursday, February 26, 1931.

(Daytime.)

7:30 A. M.	CBS—Tony's Scrap Book.
*7:45	CBS—Morning Minstrels.
*8:00	Farm Information.
8:15	Smile Club.
8:30	CBS—Morning Moods.
9:00	CBS—Radio Home Makers.
*9:15	Health Talk—American Medical Association.
x9:30	Burnham's Beauty Chat.
9:45	CBS—Barbara Gould Beauty Chat.
x10:00	Pequot Mills Program.
x10:15	Arnoil Beauty Serenade (recorded).
10:30	CBS—Fifth Avenue Foods.
x*10:45	Royal Blue Musical Chain.
x11:00	Adele Nelson's Beauty Chat.
x11:15	Times News Flashes.
x*11:30	Clem and Harry.

*Changed from last week.

11:45 Maxey Church Organ.
12:00 to 1:00 P. M. CBS—Farm Community Network.
12:00 Health Talk—A. M. A.
12:05 Midday Meditations.
12:25 Local Produce Markets.
x12:35 General Mills Program.
12:47½ Axel Christensen.

930 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Thursday, February 26, 1931.

(Afternoon.)

1:00 P. M. Henri Gendron's Orchestra—Rialto Gardens.
x1:15 Julia Hayes Household Hints.
1:45 Henri Gendron's Orchestra—Rialto Gardens.
x2:00 Burnham's Beauty Talk.
x2:15 Times News Flashes.
2:30 CBS—Columbia Salon Orchestra.
3:00 Maurie Sherman's Orchestra—Sherman Hotel.
3:30 CBS—Asbury Casino Park Orchestra.
4:00 Chicago Hour.
4:25 Grain Markets.
*4:30 French Symphony Orchestra.
*4:45 Maurie Sherman's Orchestra.
4:50 Daughters of American Revolution Program.
x5:00 Hickory Circus.
x5:15 Curtiss Treasure Hunt.
x5:20 News Flashes from the Daily Times.
5:30 CBS—Pancho & His Orchestra.
5:45 CBS—Eno Crime Club.

931 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Thursday, February 26, 1931.

(Evening.)

6:00 P. M. CBS—Morton Downey.
6:15 Henri Gendron's Orchestra—Rialto Gardens. Dance music.

*Changed from last week.

6:45	Off the air until 8:00 P. M.
*8:00	Local Loan Program.
8:15	CBS—Old Gold Character Readings.
8:30	CBS—Mystery Melodrama.
9:00	CBS—Lutheran League.
9:30	Off the air until 11:15 P. M.
11:15 to 2:00 A. M.	"Around the Town." Nightly dance program of famous leading orchestras including:
11:15	Ben Bernie's Orchestra—College Inn.
11:45	Paul Whiteman's Orchestra—Granada Cafe.
12:15	Henry Gendron's Orchestra—Rialto Gardens.
12:45	Coffee Dan's—Frank Shaw.
1:00	Ben Bernie's Orchestra—College Inn.
1:30	Paul Whiteman's Orchestra—Granada Cafe.

932 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Friday, February 27, 1931.

(Morning.)

7:30 A. M.	CBS—Tony's Scrap Book.
*7:45	Barton Organ.
*8:00	Farm Information—Official News for Farmers from leading agricultural colleges and Department of Agriculture U. S. Government.
8:05	Smile Club—Al Melgard, organist, musical request program.
8:30	CBS—Morning Moods.
8:45	Organ—J. Wilson Doty.
9:00	CBS—Columbia Mixed Quartet.
9:15	Barton Organ.
x9:30	Burham's Beauty Chat—Discussion of various beauty problems and suggestions for their solution.
9:45	CBS—Martin-Senour.
10:00	CBS—Emily Post.
10:15	CBS—Cooking Travelogues—Winifred Carter.

*Changed from last week.

10:30 CBS—Commonsense for Mothers.
10:45 CBS—Beatrice Herford.
11:00 Barton Organ.
x11:15 News Flashes from the Daily Times—Last minute news of important happenings.
11:30 Clem and Harry.
11:45 Maxey Church Organ.
12:00 to 1:00 P. M. CBS—Farm Community Network.
12:00 Health for the Whole Family—A. M. A.
12:05 Songs That Never Grow Old.
12:25 Local Produce Markets.
12:35 Axel and Christina—Dialect Script.
12:47 Farmers Natl. Grain Corp.—Prominent Speakers.

933 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Friday, February 27, 1931.

(Afternoon.)

1:00 P. M. Henri Gendron's Orchestra—Dance Music, Rialto Gardens.
x1:15 Julia Hayes.
1:45 Henri Gendron's Orchestra—Rialto Gardens.
x2:00 Burnham's Beauty Chat—Discussion of various beauty problems and suggestions for their solution.
x2:15 News Flashes from the Daily Times—last minute news of important current happenings.
2:30 CBS—U. S. Marine Band.
2:45 CBS—Columbia Educational Features.
3:00 CBS—Curtiss Institute of Music.
3:30 Maurie Sherman's Orchestra—Hotel Sherman.
4:00 Chicago Hour of Music—Organ, orchestra and vocalists.
4:25 Grain Markets.
4:30 Maurie Sherman's Orchestra.
*4:45 CBS—Champion Skaters.

*Changed from last week.

x5:00	Hickory Circus.
x5:15	Curtiss Treasure Hunt.
x5:20	Daily Times News Flashes and Stock Market Reports.
x5:30	Price's Vanilla Players.
x5:45	CBS—Eno Crime Club.

934 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Friday, February 27, 1931.

(Evening.)

6:00 P. M.	Henri Gendron's Orchestra—Rialto Gardens.
6:15	CBS—American Mutual Program.
6:30	Henri Gendron's Orchestra—Rialto Gardens.
6:45	Off the air until 7:30 P. M.
7:30	CBS—Dutch Masters.
x8:00	Daily Times Spelling Bee.
x*8:30	Gerolsteiner Sparkling Hour.
9:00	Ben Bernie's Orchestra—College Inn.
x9:15	Marmon Musical Sixteen.
*9:30	Paul Whiteman's Orchestra — Granada Cafe.
10:00	Off the air until 11:15 P. M.
11:15 to 2:00 A. M.	"Around the Town." Nightly dance program presenting famous dance orchestras including:
11:15	Ben Bernie's Orchestra—College Inn.
11:45	Paul Whiteman's Orchestra — Granada Cafe.
12:15	Henri Gendron's Orchestra—Rialto Gardens.
12:45	Coffee Dan's—Frank Shaw.
1:00	Ben Bernie's Orchestra—College Inn.
1:30	Paul Whiteman's Orchestra — Granada Cafe.

*Changed from last week.

935 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Saturday, February 28, 1931.

(Morning.)

7:30 A. M.	CBS—Tony's Scrap Book.
*7:45	CBS—Morning Minstrels.
*8:00	Farm Information.
8:05	Smile Club—J. Wilson Doty.
8:30	Julia Hayes—Household Hints.
x9:00	Climalene Dance Program.
x9:30	Burnham's Beauty Chat.
9:45	CBS—Vincent Sorey Orchestra.
x*10:00	Royal Blue Musical Chain.
10:15	Chicago Dental Society—Dr. Cadmus.
*10:30	Health Talk—A. M. A.—Advice for laymen on general care of health.
*10:45	CBS—N. Y. Philharmonic Orch.
x11:00	Beauty Chat by Adele Nelson.
x11:15	Daily Times News Flashes.
x*11:30	Clem and Harry.
11:45	Maxey Church Organ.
12:00 to 1:00 P. M.	CBS—Farm Community Network.
12:00	Health for the Whole Family—A. M. A.
12:05	WBBM Carnival.
12:25	Local Produce Markets.
12:35	Organ Lesson.
12:55	Farm Belt Headlines.

936 WBBM Air Theatre—Wrigley Bldg.—Chicago.

Program, Saturday, February 28, 1931.

(Afternoon.)

1:00 P. M.	Henri Gendron's Orchestra—Rialto Gardens.
1:15	CBS—National Democratic Club Forum.
1:45	Henri Gendron's Orchestra—Rialto Gardens.
x2:00	Burnham's Beauty Chat.
x2:15	Daily Times News Flashes.
2:30	CBS—Saturday Syncopators.

*Changed from last week.

3:00 CBS—Ann Leaf at the Organ.
3:30 Maurie Sherman's Orchestra—College Inn.
4:00 Chicago Hour of Music—Organ and vocalists.
4:30 Maurie Sherman's Orchestra—Sherman Hotel.
x5:00 Hickory Circus.
5:15 Barton Organ.
x5:20 Daily Times News Flashes.
5:30 CBS—Paul Tremaine's Orchestra.
5:45 CBS—Eno Crime Club.

937 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Saturday, February 28, 1931.

(Evening.)

8:00 P. M. Ben Bernie's Orchestra—College Inn.
x8:15 Prima Sports Review.
x8:30 Daily Times Spelling Bee.
9:15 Chicagoans Orchestra.
x9:30 Paul Whiteman's Orchestra—Granada Cafe.
10:00 Sign off until 11:15 P. M.
11:15 to 2:00 A. M. "Around the Town."
Nightly dance program presenting famous orchestras including:
11:15 Ben Bernie's Orchestra—College Inn.
11:45 Paul Whiteman's Orchestra—Granada Cafe.
12:15 Henri Gendron's Orchestra—Rialto Gardens.
12:45 Coffee Dan's—Frank Shaw.
1:00 Ben Bernie's Orchestra—College Inn.
1:30 Paul Whiteman's Orchestra—Granada Cafe.

938 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Sunday, March 1, 1931.

WJBT.

9:30 A. M. CBS—Adventures of Helen and Mary.
9:50 CBS—Columbia Educational Features—Dr. Fleischer.

*10:00	Nannette Cosmetic Hour.
*10:15	Morning Musical.
x10:30	Goldenrod Dance Program.
11:00	People's Church of Chicago—Dr. Preston Bradley.

WBBM.

12:45	Lewis E. Bower.
1:15	CBS—Cathedral Hour.
*1:30	Polish Hour.
2:00	People's Lithuanian Hour.
3:00	Variety Hour.
3:45	J. Wilson Doty—Organ Recital.
4:00	Walter Preston, Tenor.
4:30	CBS—Sweethearts of the Air.
x5:00	Norwegian Program.
x5:30	Wallace Pen Men.
x6:00	Chevrolet Musical Program.
6:30	Hickory Circus.
6:45	Off the air until 8 P. M.
8:00 P. M.	Ben Bernie's Orchestra.
8:30	CBS—Detroit Symphony Orchestra.
9:00	CBS—Jesse Crawford, Royal's Poet of the Organ.
9:30	CBS—Be Square Motor Club—Omaha Symphony Orch. (Barnsdall Program.)
10:00	Off the air until 11:15 P. M.
11:15	Henri Gendron's Orchestra—Rialto Gardens.
11:30	Ben Bernie's Orchestra—College Inn.
12:00	WBBM-Nutty Club—Paul Whiteman's Orchestra—Bobby Brown, Master of Ceremonies.

939 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Monday, March 2, 1931.

(Morning.)

7:30 A. M.	CBS—Tony's Scrap Book.
7:45	Barton Organ.
8:00	Farm Information from Agricultural Colleges and Departments.

*Changed from last week.

8:05	Smile Club— —— ——, organist, musical request program.
8:15	CBS—Pertussin Playboys.
8:30	CBS—Morning Moods.
x9:00	Climalene Dance Program.
x9:30	Burnham's Beauty Chat—Discussion of various beauty problems and suggestions for their solution.
*9:45	CBS—Melody Parade.
10:00	Health Talk—American Medical Assn.—Advice on general care of the health.
*10:15	CBS—Madison Singers.
10:30	CBS—Fifth Avenue Foods.
x10:45	Julia Hayes Household Hints.
x11:15	News Flashes from the Daily News.
x11:30	Clem & Harry.
11:45	Columbia Revue.
12:00 to 1:00	CBS—Farm Community Network.
12:00	Health for the Whole Family—A. M. A.
12:05	Farm Frolic.
12:25	Local Markets.
*12:35	Junior Chamber of Commerce.

940 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Monday, March 2, 1931.

(Afternoon.)

x*1:00 P. M.	Seedtown News.
1:05	Henri Gendron's Orchestra—Rialto Gardens.
1:15	CBS—Columbia Artist Recital.
1:30	Henri Gendron's Orchestra—Rialto Gardens.
x2:00	Burnham's Beauty Chat—Discussion of various beauty problems and suggestions for their solution.
x2:15	News Flashes from the Daily Times.
2:30	CBS—Ann Leaf at the Organ.
3:00	Maurie Sherman's Orchestra—Sherman Hotel.

*Changed from last week.

3:15	CBS—U. S. Army Band.
3:30	Maurie Sherman's Orchestra—Sherman Hotel.
4:00	Chicago Hour of Music, organ, orchestra and vocal.
4:25	Grain Markets.
4:30	Maurie Sherman's Orchestra.
4:50	Daughters of American Revolution.
x5:00	Hickory Circus.
x5:15	Curtiss Treasure Hunt.
x5:20	Daily Times News Flashes and Stock Market Report.
5:30	CBS—Melody Musketeers.
5:45	CBS—Eno Crime Club.

941 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Monday, March 2, 1931.

(Evening.)

6:00 P. M.	Henri Gendron's Orchestra—Rialto Gardens.
6:30	CBS—Forhan's Program—Evangeline Adams.
6:45	Off the air until 8:00.
x8:00	Corina Get Together Party—Leon Bloom's Orchestra—Charlie & Gene—Piano Duet—Guest Soloists.
8:30	CBS—Bourjois—An Evening in Paris—Orchestra quartet and guest soloists.
x9:00	California Tours—Musical narrative with Leon Bloom's orchestra.
x9:15	Mountain Valley Melodies.
9:30	CBS—American Maize program—Adventures of Don Amaizo, mystery musician.
10:00	Off the air until 11:15 P. M.
11:15 to 2:00 A. M.	"Around the Town."
11:15	Ben Bernie's Orchestra—College Inn.
11:45	Paul Whiteman's Orchestra—Granada Cafe.
12:15	Henri Gendron's Orchestra—Rialto Gardens.

*Changed from last week.

12:45 Coffee Dan's—Frank Shaw.
1:00 Ben Bernie's Orchestra—College Inn.

942 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Tuesday, March 3, 1931.

(Morning.)

7:30 A. M. CBS—Tony's Scrap Book.
7:45 CBS—Morning Minstrels.
8:00 Farm Information—Official news and authentic farm information from leading Agricultural Colleges and Dept. of Agriculture, U. S. Government for farmers.
8:05 Smile Club—Organist, musical request program.
8:15 CBS—Pertussin Playboys.
x8:30 Julia Hayes Household Hints.
x*9:00 Royal Blue Musical Chain.
9:15 CBS—Melody Parade—Vincent Sorey.
x9:30 CBS—O'Cedar Time—Benny Watson & Fred Von Ammon.
9:45 CBS—Party House.
10:00 CBS—Brer Rabbitt—Ida Bailey Allen.
10:15 CBS—Pebecco Program.
10:30 Chicago Dental Society.
10:45 Health Talk—American Medical Assn.—Advice to laymen on general care of the health.
x11:00 Adele Nelson—Beauty chat—Discussion and suggestions for care of personal appearance including hair, skin and figure.
x11:15 News Flashes from the Daily Times—Last minute news of important current happenings.
x11:30 Clem & Harry.
*11:45 CBS—Columbia Revue.
12:00 to 1:00 CBS—Community Farm Network.
12:00 Health Talk—A. M. A.
12:05 Story in Song.
12:25 Local Produce Markets.
x12:25 General Mills.
12:47½ National Live Stock Grain Association.

*Changed from last week.

943 WBBM Air—Wrigley Building—Chicago.

Program, Tuesday, March 3, 1931.

(Afternoon.)

x*1:00 P. M.	Seedtown News.
1:05	Henri Gendron's Orchestra—Rialto Gardens.
1:15	CBS—The Four Clubmen—Male Trio.
1:30	Henri Gendron's Orchestra—Rialto Gardens.
x2:00	Burnham's Beauty Chat.
x2:15	News Flashes from the Daily Times.
*2:30	CBS—Pancho & Orchestra.
3:30	Maurie Sherman's Orchestra — Sherman Hotel.
4:00	Chicago Hour of Music—Organ, orchestra and guest artists.
4:25	Grain Markets.
4:30	Maurie Sherman's Orchestra.
x4:50	Chicago Woman's Aid.
x5:00	Hickory Circus.
x5:15	Curtiss Treasure Hunt.
x5:20	Chicago Daily Times News Flashes and Stock Market.
x5:30	Price's Vanilla Players.
5:45	CBS—Eno Crime Club.

944 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Tuesday, March 3, 1931.

(Evening.)

6:00 P. M.	Henri Gendron's Orchestra—Rialto Gardens.
6:15	CBS—American Mutual Program.
6:30	Henri Gendron's Orchestra.
6:45	Off the air until 8:00 P. M.
8:00	CBS—Henry and George.
x8:30	Dodge Double Duo—Dasheill Motors.

*Changed from last week.

x8:45 Metro Musical Sketch—Leon Bloom's Orchestra.
9:00 CBS—Graybar's Mr. & Mrs.—Dramatization of the events in the lives of Joe and Vi.
9:15 Chicagoans Orchestra.
9:30 CBS—Paramount-Publix Radio Playhouse—Guest Screen Stars—Famous Orchestra and master of ceremonies.
10:00 Off the air until 11:15 P. M.
11:15 to 2:00 A. M. "Around the Town." Nightly dance program presenting famous dance orchestras including:
11:15 Ben Bernie's Orchestra—College Inn.
11:45 Paul Whiteman's Orchestra—Granada Cafe.
12:15 Henri Gendron's Orchestra—Rialto Gardens.
12:45 Coffee Dan's—Frank Shaw.
1:00 A. M. Ben Bernie's Orchestra—College Inn.

945 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Wednesday, March 4, 1931.

(Morning.)

7:30 A. M. CBS—Tony's Scrap Book.
7:45 Barton Organ—J. Wilson Doty.
8:00 Farm Information—Official news and authentic farm information from leading agricultural colleges and Department of Agriculture, U. S. Govt.
8:05 Smile Club—J. Wilson Doty, organist, musical request program.
8:15 CBS—Pertussin Playboys.
8:30 CBS—Morning Moods.
x9:00 Climalene Dance Program.
x9:30 Burnham's Beauty Chat.
9:45 CBS—Sewing Circle.
10:00 CBS—"Five Minute Meals" by Ida Bailey Allen, by George Hormel Company.

x*10:15	Organ Recital.
x10:30	Julia Hayes Household Hints.
x11:00	Charis Players.
x11:15	News Flashes from the Daily Times.
x11:30	Clem & Harry.
*11:45	CBS—Columbia Revue.
12:00 to 1:00 P. M.	CBS—Farm Community Network.
12:00	Health for the Whole Family—A. M. A.
12:05	Poet's Hour—Mr. Owen.
12:25	Local Market's Produce.
12:35	Band Concert—Comedy Script and Orchestra.
12:55	Farm Belt Headlines—Pertinent News for farmers.

946 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Wednesday, March 4, 1931.

(Afternoon.)

x*1:00 P. M.	Seedtown News.
1:05	Henri Gendron's Orchestra—Rialto Gardens.
1:15	CBS—Columbia Artists Recital.
1:30	Henri Gendron's Orchestra—Rialto Gardens.
x2:00	Burnham's Beauty Chat.
2:15	Daily Times News Flashes from the Daily Times.
2:30	CBS—Syncopated Silhouettes.
3:00	CBS—Musical Album.
3:30	Maurie Sherman's Orchestra—Hotel Sherman.
4:00	Chicago Hour of Music, organ and vocalists.
4:25	Grain Markets.
4:30	Maurie Sherman's Orchestra.
4:50	Illinois Federation of Women's Clubs and organ.
x5:00	Hickory Circus.
x5:15	Curtiss Treasure Hunt.
x5:20	Daily Times News Flashes and stock market reports.

*Changed from last week.

5:30 CGS—Winegar's Orchestra.
x5:45 CBS—Eno Crime Club.

947 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Wednesday, March 4, 1931.

(Evening.)

6:00 P. M. Henri Gendron's Orchestra—Rialto Gardens.
6:30 CBS—Forhan's Program—Evangeline Adams.
6:45 Off the air until 8:00.
8:00 Ben Bernie's Orchestra—College Inn.
8:30 Leon Bloom's Concert Orchestra.
9:00 Paul Whiteman's Orchestra—Granada Cafe.
x*9:15 Marmon Musical Sixteen.
x9:30 Along the C. & E. I. Trail.
10:00 Off the air until 11:15 P. M.
11:15 to 2:00 A. M. "Around the Town."
Nightly dance program presenting famous orchestras including:
11:15 Ben Bernie's Orchestra—College Inn.
11:45 Paul Whiteman's Orchestra—Granada Cafe.
12:15 Henri Gendron's Orchestra—Rialto Gardens.
12:45 Coffee Dan's—Frank Shaw.
1:00 A. M. Ben Bernie's Orchestra—College Inn.
1:30 Paul Whiteman's Orchestra—Granada Cafe.

948 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Thursday, March 5, 1931.

(Daytime.)

7:30 A. M. CBS—Tony's Scrap Book.
7:45 CBS—Morning Minstrels.

*Changed from last week.

8:00	Farm Information.
8:15	Smile Club.
8:30	CBS—Morning Moods.
9:00	CBS—Radio Home Makers.
9:15	Health Talk—American Medical Association.
x9:30	Burnham's Beauty Chat.
9:45	CBS—Barbara Gould Beauty Chat.
x10:00	Pequot Mills Program.
x10:15	Arnoil Beauty Serenade (recorded).
10:30	CBS—Fifth Avenue Foods.
x10:45	Royal Blue Musical Chain.
x11:00	Adele Nelson's Beauty Chat.
x11:15	Times News Flashes.
x11:30	Clem and Harry.
11:45	CBS—Columbia Revue.
12:00 to 1:00 P. M.	CBS—Farm Community Network.
12:00	Health Talk—A. M. A.
12:05	Midday Meditations.
12:25	Local Produce Markets.
x12:35	General Mills Program.
12:47½	Axel Christensen.

949 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Thursday, March 5, 1931.

(Afternoon.)

*1:00 P. M.	Seedtown.
1:05	Henri Gendron's Orchestra—Rialto Gardens.
x1:15	Julia Hayes Household Hints.
1:45	Henri Gendron's Orchestra—Rialto Gardens.
x2:00	Burnhams Beauty Talk.
x2:15	Times News Flashes.
2:30	CBS—Columbia Salon Orchestra.
3:00	Maurie Sherman's Orchestra—Sherman Hotel.
3:30	CBS—Asbury Casino Park Orchestra.
4:00	Chicago Hour.

*Changed from last week.

4:25 Grain Markets.
4:30 French Symphony Orchestra.
4:45 Harold Neumiller.
4:50 Daughters of America Revolution Program.
*5:00 Children's Program.
*5:15 Maxey Church Organ.
x5:20 News Flashes from the Daily Times.
5:30 CBS—Pancho & His Orchestra.
5:45 CBS—Eno Crime Club.

950-953 WBBM Air Theatre—Wrigley Building—Chicago.

Program, Thursday, March 5, 1931.

(Evening.)

6:00 P. M. CBS—Morton Downey.
6:15 Henri Gendron's Orchestra—Rialto Gardens Dance music.
6:45 Off the Air Until 8:00 P. M.
8:00 Local Loan Program.
8:15 CBS—Old Gold Character Readings.
8:30 CBS—Mystery Melodrama.
9:00 CBS—Lutheran League.
9:30 Off the Air Until 11:15 P. M.
11:15 to 2:00 A. M. "Around the Town."
Nightly dance program of famous leading orchestras including:
11:15 Ben Bernie's Orchestra—College Inn.
11:45 Paul Whiteman's Orchestra—Granada Cafe.
12:15 Henri Gendron's Orchestra—Rialto Gardens.
12:45 Coffee Dan's—Frank Shaw.
1:00 Ben Bernie's Orchestra—College Inn.
1:30 Paul Whiteman's Orchestra—Granada Cafe.

954-956 33. Do you maintain continuous watch on ship-calling channel during operative hours? Yes.

34. (*a*) Is applicant directly or indirectly interested in ownership or control of any other radio stations? No. (*b*)

*Changed from last week.

If so, state number, call letters, and location of such stations: None.

35. State definite facts why the continued operation of the station will be in the public convenience, interest, or necessity? See attached.

WBBM is the Chicago Key Station of the Columbia Broadcasting System, originating from 12 to 25 hours of education and entertainment programs each week, which are fed to member stations of the Columbia System. The Columbia Farm Community Network originates with WBBM.

WBBM is an independent station controlled by neither newspaper, monopoly, manufacturer, church nor union, and the facilities of WBBM are available to any persons or parties that have a message in the public interest. Consequently, the scope of public service from WBBM is much greater than could be offered by any station with such affiliations as are above mentioned, whose primary interest in a radio station naturally is self-promotion.

Through WBBM, many associations, manufacturers and newspapers are able to present such material to the public as is in the public interest, convenience and necessity. In this way, WBBM serves as a radio medium operated entirely in the public interest, convenience and necessity.

WBBM was one of the first stations in Illinois, and since 1923 has successfully served a great audience in the middle west, and from all over the world, with high grade educational, religious and entertainment features.

Educational work now being conducted includes daily health talks presented directly from the headquarters of medical science, the American Medical Association, talks on "Americanism" prepared by the D. A. R., household information, and special programs for women, presented from our own studios, and as a member of the Columbia Broadcasting System, athletic exercises presented by our own physical director. Detailed and comprehensive farm information is presented by our own farm director, and also in conjunction with the U. S. Department of Agriculture; news flashes and market information are presented at regular intervals throughout the day, directly from the Chicago Daily Times, Chicago.

A complete religious service is presented each Sunday. This service includes a morning address by Dr. Preston

Bradley of the Peoples Church of Chicago, a special service each Sunday evening by prominent leaders of various denominations, as well as all of the services available from the Columbia Broadcasting System.

Entertainment attractions from WBBM are unexcelled. They include the presentations of the world's outstanding orchestras, popular recording artists; a symphonic orchestra under the direction of A. Leon Bloom, which is maintained in the studio at all times, and productions by a competent studio staff, directed by Walter Preston.

957 APP. EXHIBIT 6.

958 Federal Radio Commission, Jan. —, 1931.

File No.: 564. Official No.: 564. Call Letters: WIBO. Class of Service: Broadcasting.

UNITED STATES OF AMERICA:

Federal Radio Commission.

Application for Renewal of Radio Broadcasting Station License.

(Submit in duplicate to District Supervisor of Radio in charge of District in which station is located. Swear to one copy.)

To the Federal Radio Commission:

1. Name of applicant*: Nelson Brothers Bond and Mortgage Company.

2. Post-office address: State, Chicago, Illinois; City, Chicago; Street and number, 134 North LaSalle Street.

3. Citizenship: American.

4. State whether applicant is a corporation, partnership, or association: Corporation.

* If a corporation, state corporate name; if a partnership, state names of all partners and the name under which the partnership does business; if an unincorporated association, state the name of an executive officer, the office held by him, and the name of the association. The same name or names should be signed in the place provided at the end of application, except that in the case of a partnership the application may be signed in the name of the partnership by one of the partners. This application must be executed and signed in the name which appears on the license for which renewal is requested, unless there has been an assignment of the license with the written consent of the Commission.

5. If applicant is a corporation, state (*a*) Under laws of what State it is organized: Illinois; (*b*) May more than one-fifth of capital stock be voted by aliens or their representatives, or by a foreign government or representative thereof? No; (*c*) Is any director or officer an alien? If so, state his name and position: None; (*d*) If applicant is a subsidiary, state name and address of parent company and under laws of what State or country parent company is organized: Not a subsidiary; (*e*) Whether stock is to be sold for the purpose of raising money to operate station: No.

959 6. State fully the facts showing applicant's financial responsibility with respect to operation of this station: Owned and operated by Nelson Brothers Bond and Mortgage Company, a $1,000,000 corporation. Incorporated under State of Illinois.

7. Is applicant a representative of an alien or foreign Government? No.

8. Has the applicant, since February 23, 1927, been finally adjudged guilty by any Federal court of unlawfully monopolizing, or attempting unlawfully to monopolize, radio communication through control of manufacture or sale of radio apparatus, exclusive traffic arrangements, or any other means, or of unfair methods of competition? No.

9. State applicant's relation to station (whether applicant is owner or lessee, and if not, nature of applicant's interest in use and control of station): Owner.

10. If applicant is not owner of station, who is? ——

11. File number and date of license sought to be renewed: 564—September 30th, 1930.

12. The existing license authorizes the use of: (*a*) Frequency, 560 kilocycles; (*b*) Power output for daytime operation, 1,500 watts; Nighttime, 1,000 watts; (*c*) Hours of operation, 6:30 A. M. to 2:00 A. M.; (*d*) Call letters, WIBO.

13. Under existing license, state (*a*) Average per cent of time weekly, devoted to following services: (1) Entertainment, 70; (2) Religious, 5; (3) Commercial, 25; (4) Educational, ——; (5) Agricultural, ——; (6) Fraternal, ——; (7) ——; (*b*) Average number of hours per month station has operated during present license period: 514; (*c*) Does applicant sell time? Yes; (*d*) If applicant does not sell time, how is station supported? ——; (*e*) Number of

weekly hours of sponsored programs is 30; of direct advertising programs is None; (*f*) Are merchandise prices quoted in interest of applicant? No; or others? No;
960 (*g*) Average number of hours sold weekly before 6 p. m., 20¾; after 6 p. m., 9¼; (*h*) Average number of hours used weekly in interest of applicant, 4½; (*i*) Average amount of money spent weekly for talent, $2,000; (*j*) Total monthly net income, $4,500.

14. Description of transmitting apparatus (if more than one transmitter is to be used, the following information should be submitted separately for each such transmitter): (*a*) Make, Composite; (*b*) Type, Automatic Crystal Control; (*c*) Manufacturer's serial number, None; (*d*) Oscillator: Type of circuit, Hartly UX 210; Number of tubes, 1; Plate current (per tube), 30 M. A.; Plate voltage, 400; (*e*) Number of intermediate power amplifier stages (if any), 3; (*f*) Power amplifier, if used (last stage): Number of tubes, 2; Normal operating: Plate current (per tube), 450 M. A.; Plate voltage, 5,500; Night Time, Normal operating: Plate current (per tube), 325 M. A.; Plate voltage, 5,000; Manufacturer's rating of tubes: Plate current, 1 Amp.; Plate voltage, 5,000; Power output, 1,500 watts; Night Time Power output, 1,000 watts; (*g*) Modulator: Number of tubes, 1; Plate current (per tube), 4 Amp.; Plate voltage, 5,500; Which radio stage is modulated? 3rd Amplifier; (*h*) Maximum power output, 10,000 watts; Minimum power output for satisfactory operation, 1,000 watts; Normal radiated power, 15 meter amperes; Height of antenna (from its ground or counterpoise to highest point of antenna), 40 meters; Antenna current (at base), 15 amperes; (*i*) Plate power supply source for last stage, Motor Generator; Ratings (voltage and current), 6,000 Volt at 5 Amp.; What is maximum percentage of modulation? 100; Modulation measuring device is Westinghouse Osiso.

15. (*a*) Type of antenna, "T"; (*b*) Height of vertical lead, 120 feet; (*c*) Length of flat top (if any), 140 feet; (*d*) Counterpoise, type, and dimensions, Fan, 150 Foot Radius; (*e*) Distance between towers or antenna supports, 300 feet; (*f*) Resistance of antenna system, 8 ohms; (*g*) Date apparatus was installed, December 15, 1929.

961 16. The applicant represents that the attached is an accurate schematic diagram of the fundamental radio and audio circuit of the transmitter, including an-

tenna and ground or counterpoise connections, antenna feed system, and that it indicates type and power of tubes with manufacturer's name. (This should be a blue print or ink drawing, approximately the size of this application, or a complete schematic diagram of any size applicant has on file may be submitted.) (*b*) Speech input equipment: Make, Composite; Type, Resistance Couple; Audio monitoring device, 2 UX 25 Full wave Rectifier Feeding Speaker Direct.

17. (*a*) Within how many cycles of assigned frequency will frequency of transmitter be maintained continuously? 50. (*b*) State what apparatus is included as an integral part of the transmitter that will automatically hold frequency within the limits specified in answer to 17 (*a*) (such as quartz crystal): Quartz Crystal in Grid Circuit of Oscillator (UX 250). If crystal is used, state whether or not crystal has automatic temperature control: Yes. If not, why not? ——.

18. (*a*) What type of frequency measurement or calibration apparatus will be used to tune the transmitter or check its tuning? Automatic Crystal Control. (*b*) Within how many cycles will this apparatus measure the frequency? Supposedly Exactly. (*c*) What methods will be used to check the calibration of this precision instrument? Instruments of local radio supervisor. (*d*) How often is this instrument checked? ——.

19. Location of transmitter: State, Illinois; County, Cook; City or town, Near Desplaines; Street and number, Ballard Road; Latitude: Degrees, 42; minutes, 1; seconds, 14; Longitude: Degrees, 87; minutes, 50; seconds, 8.

20. Description of auxiliary transmitting apparatus, if any: (1) Make, None; (2) Type, None; (3) Manufacturer's serial number, None.

21. Location of auxiliary transmitter: State, None; Couny, ——; City or town, None; Street and number, None; Latitude: Degrees, ——; minutes, ——; seconds, ——; Longitude: Degrees, ——; minutes, ——; seconds, ——.

962

22. Location of main studio: State, Illinois; County, Cook; City or town, Chicago; Street and number, 6312 Broadway. Other studios: Chicago Evening American, Hearst Bldg., 326 W. Madison, Chicago, Illinois; Chicago

Theatre (principal theatre of Balaban & Katz Chain, 175 North State Street, Chicago, Illinois.

23. Has any change in location of either transmitter or main studio been made during present license period? No. If so, what change? ——.

24. Number of persons residing within various distances of transmitter: (*a*) For stations of all powers, give number of persons residing within 1 mile: 100; 2 miles, 500; 3 miles, 1500. (*b*) For all stations of power above 1 KW., give in addition to above the number of persons residing within 5 miles: 25,000; 8 miles, 60,000.

25. (a) The following radio transmitting stations (by call letters) are located within 1 mile of location of transmitter: None; 2 miles, None; 3 miles, None; 8 miles, WJAZ and WBBM. (*b*) The following radio nonbroadcasting (commercial or Government) receiving stations are located within 1 mile of the location of transmitter: None; 2 miles, None; 3 miles, None; 8 miles, None.

26. (*a*) Name and give location of any airports or flying fields within 10 miles of transmitter: Curtiss Airport. (*b*) Give distance from transmitter to each of such airports or flying fields: 6 miles to Curtiss Airport. (*c*) Name
963 and give distance from transmitter to any established airways within 10 miles of location of transmitter: Two miles to the Chicago-Milwaukee Airway. (*d*) Give maximum height (in feet) of towers or antenna above ground level: 150 feet. (*e*) Are towers painted and marked with signal lights to conform with Department of Commerce, Bureau of Aeronautics, specifications? Towers are lighted.

27. Specify actual periods station has been operated since effective date of existing license:

	A. M.	P. M.	Total daily hours.
Sunday	3	7½	10½
Monday	5½	12	17½
Tuesday	5½	12½	18
Wednesday	5½	12½	18
Thursday	5½	13	18½
Friday	5½	13	18½
Saturday	5½	12	17½
Total weekly hours			118½

28. Does station divide time? Yes. If so, with what station-? WPCC & WISJ.

29. State average number of hours per month station will be operated during each month in the summer: 494; Each month in the winter, 509.

30. Does station obtain programs from what is known as a "chain?" Yes. (*a*) Name of chain: National Broadcasting Company. (*b*) What is total hours per week of chain programs (i. e., programs, both paid or sustaining, which are duplicated by any other station)? 17.

31. (*a*) Attach printed program for week last preceding date of this application. Entire Month of November. (*b*) Are phonographic or mechanical reproductions used? Yes. If so, how are they announced? Phonograph Records.

964 Federal Radio Comm., Mar. 20, 1931. Received 1st Mail, Mail and Files.

Affiliated with Chicago Evening American. Member National Broadcasting Company.

WIBO, Chicago, Illinois.
Phone: Central 6383. Studio: Sheldrake 6000.

March 18, 1931.

Mr. James W. Baldwin,
Secretary, Federal Radio Commission,
Washington, D. C.

DEAR MR. BALDWIN:

Your letter of March 11th, 1931.

In referring to application of this station, I find an error in the reply to Paragraph 27 of Form 37-B. The correct information is as follows:

	A. M.		P. M.		Total hrs.
Monday	6:30-12:00 12:00- 2:00	7½ hrs.	12:00- 5:00 7:00-12:00	10 hrs.	17½
Tuesday	6:30-12:00 12:00- 2:00	7½ hrs.	12:00- 5:00 6:30-12:00	10½ hrs.	18
Wednesday	6:30-12:00 12:00- 2:00	7½ hrs.	12:00- 5:00 6:30-12:00	10½ hrs.	18
Thursday	6:30-12:00 12:00- 2:00	7½ hrs.	12:00- 5:00 6:00-12:00	11 hrs.	18½

	A. M.		P. M.		Total hrs.
Friday	6:30-12:00 7½ hrs. 12:00- 2:00		12:00- 5:00 11 hrs. 6:00-12:00		18½
Saturday	6:00-12:00 7½ hrs. 12:00- 2:00		12:00- 5:00 10 hrs. 7:00-12:00		17½
Sunday	7:30-10:00 4 hrs. 12:00- 1:30		12:30- 4:00 6½ hrs. 7:00- 8:00 4:30- 6:00 (by special authority Sunday)		10½
Total Hours Weekly					118½

The division of A. M. and P. M. hours of operation reported was obviously erroneous, and resulted from counting hours after midnight as P. M. hours.

I am attaching triplicate copies of agreement between WPCC and WIBO, in accordance with your request. I hope this supplies the necessary information and data.

Sincerely yours,

ALVIN E. NELSON,
ALVIN E. NELSON,
President Radio Station WIBO.

AEN:GEM.
Enc.

965 Federal Radio Comm., Mar. 20, 1931. Received 1st Mail, Mail and Files.

Chicago, Illinois, March 17, 1931.

Whereas the owners of WPCC of Chicago, and WIBO of Chicago, for a considerable period have had a parol agreement whereby the license periods designated in the licenses of the stations have been deviated from, and whereas it is the desire of the aforesaid owners to continue that agreement during the ensuing year:

In order to comply with the request of the Radio Commission, this agreement is reduced to writing and is as follows:

Between the hours of 12:30 P. M. and 4:30 P. M. on Sunday, and between the hours of 7:00 P. M. and 8:00 P. M. on Sunday, WPCC will not operate its transmitter, but will permit and agree that WIBO shall operate the transmitter of WIBO during the aforesaid hours. That in consideration for this concession on the part of WPCC, WIBO

agrees to broadcast the program of the North Shore Church or such program as Dr. J. C. O'Hair may designate during the following specified hours:

From 12:00 Noon until 12:30 P. M. on each week-day, and on Monday from 7:00 to 7:30 P. M., and on Tuesday from 7:30 to 8:00 P. M., and on Friday from 6:00 to 6:30 P. M.

it being understood that this agreement shall become void in the event the Radio Commission shall reallocate to either of the aforesaid stations any of the time herein specified, and may be terminated after sixty (60) days' notice in writing.

It is further understood that a copy of this agreement will forthwith be filed with the Secretary of the Radio Commission in accordance with his request.

NELSON BROTHERS BOND & MORTGAGE COMPANY,
By ALVIN E. NELSON,
President.
NORTH SHORE CHURCH,
By J. C. O'HAIR,
Pastor and Agent.

966 Federal Radio Comm., Mar. 20, 1931. Received 1st Mail, Mail and Files.

Chicago, Illinois, March 17, 1931.

Whereas the owners of WPCC of Chicago, and WIBO of Chicago, for a considerable period have had a parol agreement whereby the license periods designated in the licenses of the stations have been deviated from, and whereas it is the desire of the aforesaid owners to continue that agreement during the ensuing year:

In order to comply with the request of the Radio Commission, this agreement is reduced to writing and is as follows:

Between the hours of 12:30 P. M. and 4:30 P. M. on Sunday, and between the hours of 7:00 P. M. and 8:00 P. M. on Sunday, WPCC will not operate its transmitter, but will permit and agree that WIBO shall operate the transmitter of WIBO during the aforesaid hours. That in consideration for this concession on the part of WPCC, WIBO

agrees to broadcast the program of the North Shore Church or such program as Dr. J. C. O'Hair may designate during the following specified hours:

From 12:00 Noon until 12:30 P. M. on each week-day, and on Monday from 7:00 to 7:30 P. M., and on Tuesday from 7:30 to 8:00 P. M., and on Friday from 6:00 to 6:30 P. M.

it being understood that this agreement shall become void in the event the Radio Commission shall reallocate to either of the aforesaid stations any of the time herein specified, and may be terminated after sixty (60) days' notice in writing.

It is further understood that a copy of this agreement will forthwith be filed with the Secretary of the Radio Commission in accordance with his request.

NELSON BROTHERS BOND & MORTGAGE COMPANY,
By ALVIN E. NELSON,
President.
NORTH SHORE CHURCH,
By J. C. O'HAIR,
Pastor and Agent.

967 Federal Radio Comm., Mar. 20, 1931. Received 1st Mail, Mail and Files.

Chicago, Illinois, March 17, 1931.

Whereas the owners of WPCC of Chicago, and WIBO of Chicago, for a considerable period have had a parol agreement whereby the license periods designated in the licenses of the stations have been deviated from, and whereas it is the desire of the aforesaid owners to continue that agreement during the ensuing year:

In order to comply with the request of the Radio Commission, this agreement is reduced to writing and is as follows:

Between the hours of 12:30 P. M. and 4:30 P. M. on Sunday, and between the hours of 7:00 P. M. and 8:00 P. M. on Sunday, WPCC will not operate its transmitter, but will permit and agree that WIBO shall operate the transmitter of WIBO during the aforesaid hours. That in consider-

ation for this concession on the part of WPCC, WIBO agrees to broadcast the program of the North Shore Church or such program as Dr. J. C. O'Hair may designate during the following specified hours:

From 12:00 Noon until 12:30 P. M. on each week day, and on Monday from 7:00 to 7:30 P. M., and on Tuesday from 7:30 to 8:00 P. M., and on Friday from 6:00 to 6:30 P. M.

it being understood that this agreement shall become void in the event the Radio Commission shall reallocate to either of the aforesaid stations any of the time herein specified, and may be terminated after sixty (60) days' notice in writing.

It is further understood that a copy of this agreement will forthwith be filed with the Secretary of the Radio Commission in accordance with his request.

NELSON BROTHERS BOND & MORTGAGE COMPANY,
By ALVIN E. NELSON,
President.
NORTH SHORE CHURCH,
By J. C. O'HAIR,
Pastor and Agent.

32. Give names and classes of licensed operators in charge of station: H. V. FitzCharles, 1st, 6-6-29; Carl Nicholson, 2nd, 2-5-30; Paul Miller, 2nd, 5-16-30; Leopold Fetcher, 2nd, 3-18-30; Roxey Burley, 2nd, 4-17-30. (*a*) Number of other employees: 27. (*b*) Total weekly pay roll, $2,150.

968 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Saturday, November 1st, 1930.

Bulova Time Signal	6:25
Uncle John	6:26
Bulova Time Clock	7:30
Cream of Wheat—N. B. C.	7:45
Foreman Clark	8:00
Bulova Time Clock	8:15
Vermont Lumberjacks—N. B. C.	8:30

Children's Program	8:45
Musical Interlude	9:00
Reading Room	9:15
Happy Home Program	9:45
Bulova Annc.	10:30
News Flashes	10:31
Around the House	10:45
Uptown Chicago Radio Hour	11:00
American Annc.	11:58
Bulova Annc.	11:59
W P C C	12:00
Bulova Annc.	12:30
American Annc.	12:31
News Flashes	12:32
White City Ballroom	12:45
American Annc.	1:00
George Devron	1:01
Uptown Conservatory	1:15
American Annc.	1:30
Publix Theatre Reporter	1:31
Television	1:36
Bulova Time Signal	1:45
Football Game	1:47
Studio Orchestra	4:25
Evening American Annc.	4:30
Television	4:31
American Annc.	4:58
Bulova Annc.	4:59
Sign off	5:00
Bulova Time Signal	7:00
Speech—N. B. C.	7:01
White City Ballroom	7:05
Bower Annc.	7:08
Publix Reporter	7:09
Washington Shirt Annc.	7:14½
Savage Speech	7:15
American Annc.	7:29
Fuller Brush—N. B. C.	7:30
General Electric Annc.	8:00
General Electric Program	8:00½
General Electric Annc.	9:00

	Henrici Annc.	9:00½
	Civic Opera—N. B. C.	9:01
	Henrici Annc.	10:00
	American Annc.	10:00½
	Weather Report	10:01
	First Nighter	10:04
	Bulova Annc.	10:30
	Publix Program	10:31
	Geo. Devron	10:36
	Golf Tournament—N. B. C.	11:00
	American Annc.	11:01
	Garrigan	11:11
	White City	11:30
969	George Devron	11:45
	Bulova Time Signal	12:00
	Garrigan	12:01
	American Annc.	12:15
	Devron	12:16
	Art Kassel	12:30
	Garrigan	1:30
	Sign off	2:00

970 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Sunday, November 2nd, 1930.

Tone Pictures—N. B. C.	7:00
Swedish Services	8:00
Sign off	10:00
Popular Studio Program	12:30
Publix Reporter	1:00
Bower Annc.	1:05
Meditations of Man	1:05½
Copeland Smith League	1:30
Music Box	2:30
Norwegian Services	3:00
W P C C	4:00
Dr. Emerson Fosdick—N. B. C.	4:30
Catholic Hour	5:00
Sign off	6:00
Bulova Annc.	7:00

Studio Program	7:00½
Bower Annc.	7:14
Garrigan	7:15
Chase and Sanborn—N. B. C.	7:30
W P C C	8:00
Pennzoil Program—N. B. C.	9:15
Sign off	9:30
Devron	12:00
White City	12:15
Art Kassel	12:30
Garrigan	1:30
Sign off	2:00

971 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Wednesday, November 5, 1930

Uncle John and His Family	6:25 A. M.
Cheerio N. B. C.	7:30
Cream of Wheat Program N. B. C.	7:45
Foreman & Clark Program	8:00
Bulova Time Clock	8:15
Vermont Lumberjacks	8:30
Children's Program	8:45
Libby McNeil & Libby N. B. C.	9:00
Reading Room	9:15
Wildroot Program N. B. C.	9:45
Forecast School of Cookery N. B. C.	10:00
Bulova Time Signal	10:30
Evening American News Flashes	10:31
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	12:00
North Shore Church	12:01
Evening American News Flashes	12:30 P. M.
George Devron's Orchestra	12:45
Bulova Time Signal	1:14
Blue Chasers N. B. C.	1:15
Publix Theatre Reporter	1:40
George Devron	1:45
Granada Golf Course Ann.	1:59

Race—N. B. C.	2:00
White City Ballroom	2:15
Bower Announcement	2:29
Race N. B. C.	2:30
Book Review N. B. C.	2:45
Washington Shirt Announcement	2:46
Bulova Time Signal	3:00
Radio Guild N. B. C.	3:01
Lewis Bower—& Granada Golf Ann.	4:00
White City Marathon	4:01
Paradise Ballroom Ann.	4:15
Evening American News Flashes	4:16
Granada Golf Ann.	4:30
Television—studio	4:31
Bulova Time Signal	4:59
Sign Off	5:00
Phil Cook Quaker Man N. B. C.	6:30
William Hard N. B. C.	6:45
Washington Shirt Announcement	7:00
George Devron	7:01
White City Ballroom	7:25
Jimmy Garrigan	7:30
Bulova Time Signal	8:00
Studio Program—Television	8:01
Hayes Announcement	8:24
Publix Theatre Reporter	8:25
Giant Finger of the Air	8:30
Chicago Theatre Program	9:00
Louis E. Bower Announcement	9:30
George Devron	9:31
White City	9:45
Bulova Time Signal	10:00
Weather Report	10:01
Music Box	10:03
Garrigan	10:30
Canadian Pacific N. B. C.	11:00
White City	11:30
George Devron Orchestra	11:45
Bulova Time Signal	12:00
Jimmy Garrigan	12:01
Golf Tournament	12:05
Jimmy Garrigan Orchestra	12:30
Sign Off	1:00

972 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Thursday, November 6, 1930

Uncle John	6:25
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Foreman Clark Program	8:00
Bulova Time Clock	8:15
Vermont Lumberjacks—N. B. C.	8:30
Children's Program	8:45
Libby McNeil—Libby—N. B. C.	9:00
Reading Room	9:15
News Flashes	9:45
Bulova Announcement	9:59
Forecast School of Cooking—N. B. C.	10:00
Northern Warren—N. B. C.	10:30
Around the Home	10:45
Uptown Radio Hour	11:00
Bulova Time Signal	12:00
W P C C	12:00½
News Flashes	12:32
Announcement	12:45
George Devron	12:46
Bulova Time Signal	1:15
Studio—Television	1:16
Announcement	1:24½
Publix Theatre Reporter	1:25
Captain Rickenbacker—N. B. C.	1:30
Washington Shirt Anne.	2:00
International Broadcast—N. B. C.	2:00½
Bulova Time Signal	3:00
Bower Anne.	3:01
Magic of Speech—N. B. C.	3:02
American Announcement	3:30
Granada Golf Program	3:31
White City Ballroom	4:00
American Announcement	4:14
News Flashes	4:15
Hayes Announcement	4:30
Studio Television	4:31

American Annc.	4:59½
Bulova Announcement	4:59
Sign off	5:00
Midweek Federation—N. B. C.	6:00
Phil Cook—N. B. C.	6:30
Jarman Shoe Program—N. B. C.	6:45
Jarman Announcement	7:00
Mr. Bartlette—Speaker	7:01
Special Announcement	7:10
George Devron	7:11
Bulova Time Signal	7:29
Bower Annc.	7:30
Jimmy Garrigan	7:31
Washington Shirt Annc.	7:54
Publix Theatre Reporter	7:55
Knox Dunlop Program—N. B. C.	8:00
Shayne Annc.	8:15
National Sugaar Program—N. B. C.	8:30
Bower Program	9:00
Publix Program	9:15
Atlas Annc.	9:30
Devron	9:31
Jimmy Garrigan	9:46
Bulova Time Signal	10:00
Weather Report	10:01
Music Box	10:03
Hayes Annc.	10:29
First Nighter	10:30
Garrigan	11:00
White City	11:30
George Devron	11:45
Jimmy Garrigan	12:00
Geo. Devron	12:15
Garrigan until 1:00	12:30
Sign off	1:00

973 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Friday, November 7th, 1930.

Uncle John	6:25
Cheerio—N. B. C.	7:30

Cream of Wheat—N. B. C.	7:45
Foreman Clark Program	8:00
Bulova Time Clock	8:15
Vermont Lumberjack—N. B. C.	8:30
Children's Program	8:45
Libby McNeil—Libby—N. B. C.	9:00
Reading Room	9:15
H. J. Heinz—N. B. C.	9:45
Musical Appreciation—N. B. C.	10:00
Bulova Time Signal	10:45
What's Good in your Cupboard	10:46
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00
News Flashes	12:30
Special Announcement	12:45
George Devron	12:46
Bulova Time Signal	1:15
Studio—Television	1:15
Publix Theatre Reporter	1:40
Atlas Announcement	1:45
George Devron	1:46
Washington Shirt Anne.	2:00
Studio—Television	2:01
Hayes Announcement	2:15
White City Ballroom	2:16
Philharmonic Orchestra—N. B. C.	2:30
Bulova Time Signal	3:00
Dancing Melodies—N. B. C.	3:01
Bower Anne.	3:30
Granada Golf Program	3:31
White City Ballroom	4:00
News Flashes	4:15
Studio—Television	4:30
Special Announcement	4:58
Bulova Time Signal	4:59
Sign off	5:00
Bulova Time Signal	6:00
Publix Reporter	6:01
Bob Hawks	6:10
Bennwy Swartz Weather Report	6:12
National Battery—N. B. C.	6:15
N: B. C.—Phil Cook—N. B. C.	6:30

Brownbilt Program—N. B. C.	6:45
Nestle's Chocolateers—N. B. C.	7:00
Conn Program	7:30½
Craddock Terry—N. B. C.	7:45
Cliquot Club Ginger Ale—N. B. C.	8:00
Washington Shirt Program	8:30
Atlas Program	9:00
R K O—N. B. C.	9:30
Hirsch Announcement	10:00
Bulova Time Signal	10:01
Publix Reporter Program	10:02
Hayes Program	10:15
Bower Annc.	10:30
George Devron	10:31
White City	10:45
Jimmy Garrigan	11:00
Granada Golf Annc.	11:30
White City	11:31
George Devron	11:45
Bulova Time Signal	12:00
Garrigan	12:01
American Annc.	12:15
George Devron	12:16
Jimmy Garrigan	12:30
Sign off	1:00

974 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Saturday, November 8, 1930.

Uncle John and His Family	6:25 A. M.
Cheerio N. B. C.	7:30
Cream of Wheat N. B. C.	7:45
Foreman & Clark	8:00
Bulova Time Clock	8:15
Vermont Lumberjacks N. B. C.	8:30
Children's Program	8:45
Musical Interlude	9:00
Reading Room	9:15
Happy Home Program	9:45
Bulova Time Signal	10:30
Evening American News Flashes	10:31

Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	12:00
North Shore Church	12:01 P. M.
Evening American News Flashes	12:30
Louis E. Bower Ann.	12:45
White City Marathon	12:46
Bulova Time Signal	1:00
George Devron	1:01
Break at 1:15 for Ann.	1:15
Special Announcement	1:30
Studio—Television	1:31
Publix Theatre Reporter	1:40
Bulova Time Signal	1:45
Football Game—Chicago-Purdue	1:46
Washington Shirt Ann.	4:30
Studio—Television	4:31
Hayes Announcement	4:58
Bulova Time Signal	4:59
Sign off	5:00
H. J. Heinz Program N. B. C.	7:00
General Electric Announcement	8:00
General Electric Program N. B. C. (Cut Bells at end)	8:00½
General Electric Announcement	9:00
Henrici Announcement	9:00½
Opera—Jewels of the Madonna N. B. C.	9:01
Henrici Announcement	10:00
Weather Report	10:01
Publix Theatre Reporter	10:03
Music Box	10:08
Hayes Announcement	10:29
Bulova Time Signal	10:30
The First Nighter	10:31
Washington Announcement	11:00
Jimmy Garrigan Orchestra	11:01
Bower Announcement	11:29
White City	11:30
George Devron's Orchestra	11:45
Bulova Time Signal	12:00
Jimmy Garrigan's Orchestra	12:01
George Devron's Orchestra	12:15
Atlas Announcement	12:30

Jimmy Garrigan	12:31
Sign off	1:00

975 *WIBO Program Log.*

560 Kilocycles—535.7 Meters.

Sunday, November 9, 1930.

Tone Pictures—N. B. C.	7:30
Swedish Services	8:00
Sign off	10:00
Popular Program	12:30
Publix Reporter	1:00
Meditations of Man	1:05
Copeland Smith League	1:30
Music Box	2:30
Norwegian Program	3:00
W P C C	4:00
Dr. Fosdick—N. B. C.	4:30
Catholic Hour	5:00
Sign off	6:00
Studio Program	7:00
Garrigan	7:15
Chase and Sanborn—N. B. C.	7:30
Pennzoil Program Annc.	8:00
W P C C	8:0-½
Pennzoil Pete—N. B. C.	9:15
Sign off	9:30
George Devron	12:00
White City	12:15
Garrigan	12:30
Sign off	1:00

976 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Monday, November 10, 1930.

Uncle John and His Family	6:25 A. M.
Cheerio N. B. C	7:30
Cream of Wheat N. B. C	7:45
Bulova Time Clock	8:00
Popular Bits N. B. C	8:15

Vermont Lumberjacks N. B. C	8:30
Children's Program	8:45
Drug Program N. B. C	9:00
Reading Room	9:15
Happy Home Program	9:45
Bulova Time Signal	10:30
Evening American News Flashes	10:31
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	12:00
North Shore Church	12:01 P. M.
Evening American News Flashes	12:30
Atlas Announcement	12:45
George Devron's Terrace Garden Orch	12:46
Bulova Time Signal	1:15
Studio—Television	1:16
Publix Theatre Reporter	1:40
Hayes Announcement	1:45
George Devron	1:50
Bower Announcement	2:00
Studio—Television	2:01
Special Announcement	2:15
White City	2:16
Chicago Serenaders N. B. C	2:30
Bulova Time Signal	3:00
Washington Announcement	3:01
Studio Program musical	3:02
News Flashes	3:15
Granada Golf Program	3:30
Special Announcement	4:00
White City	4:01
Evening American News Flashes	4:15
Special Announcement	4:30
Studio—Television	4:31
Bulova Time Signal	4:59
Sign Off	5:00
Merle Thorpe N. B. C	7:00
Roxy N. B. C	7:15
Bennie Schwartz Weather Report	7:25
Bulova Time Signal	7:29
Bower Program	7:30
Garrigan's Orchestra	7:45

	Hayes Announcement	8:00
	Studio—Television	8:01
	Publix Theatre Reporter	8:25
	Washington Shirt Announcement	8:30
	Giant Finger	8:31
	George Devron's Orchestra	9:00
	Special Announcement	9:15
	White City	9:16
	Van Gunten speaker	9:30
	Studio	9:40
	Atlas Announcement	9:44
	Jimmy Garrigan's Orchestra	9:45
	Bulova Time Signal	10:00
	Weather Report	10:01
	Music Box	10:04
	George Devron	10:30
	White City	10:45
	Jimmy Garrigan	11:00
	Special Announcement	11:30
	White City Marathon	11:31
	George Devron	11:45
977	Bulova Time Signal	12:00
	Jimmy Garrigan's Orchestra	12:01 A. M.
	Special Announcement	12:15
	George Devron	12:16
	Garrigan	12:30
	Sign Off	1:00

978 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Tuesday, November 11, 1930.

	Uncle John and His Family	6:25 A. M.
	Cheerio N. B. C.	7:30
	Cream of Wheat N. B. C.	7:45
	Bulova Time Clock	8:00
	Calsodent N. B. C.	8:15
	Vermont Lumberjacks N. B. C.	8:30
	Children's Program	8:45
	Libby, McNeil & Libby N. B. C.	9:00
	Reading Room	9:15

H. J. Heinz Program N. B. C	9:45
Forecast School of Cookery N. B. C	10:00
Bulova Time Signal	10:30
Evening American News Flashes	10:31
Around the Home	10:45
2 minutes' silent meditation	11:00
Uptown Radio Hr	11:01
Bulova Time Signal	12:00
North Shore Church	12:01 P. M.
Evening American News Flashes	12:30
Special Announcement	12:45
George Devron's Announcement	12:46
Bulova Time Signal	1:15
Studio—Television	1:16
Publix Theatre Reporter	1:40
George Devron's Orchestra	1:45
Washington Shirt Announcement	2:00
Studio—Television	2:01
Hayes Announcement	2:15
White City Marathon	2:16
Woodrow Wilson Lewies N. B. C	2:30
Bulova Time Signal	3:15
Studio Program (Break 3:30 for Ann)	3:16
Atlas Announcement	3:59
White City Marathon	4:00
Evening American News	4.15
Studio—Television	4.30
Bower Announcement	4:58
Bulova Time Signal	4:59
Sign Off	5:00
Phil Cook N. B. C	6:30
Curtis Candy Co	6:45
Speaker—Studio	6:50
Bulova Time Signal	6:59
North Shore Church	7:08½
Jimmy Garrigan's Orchestra	8:00
Hayes Announcement	8:24
Publix Treatre Reporter	8:25
Continental Bakers N. B. C	8:30
Enna Jettick N. B. C. (Cut Bells)	9:00
Mandel Brothers Ann	9:15
Rosenthal Program	9:15½
Lucky Strike Dance Orchestra N. B. C	9:30

Bulova Time Signal	10:00
Weather Report	10:01
Music Box	10:03
Washington Shirt Announcement	10:30
The First Nighter	10:30½
Bower Announcement	11:00
Jimmy Garrigan	11:01
Atlas Ann.	11:30
White City	11:31
George Devron's Orchestra	11:45
Bulova Time Signal	12:00
Garrigan's Orchestra	12:01 A. M.
George Devron's Orchestra	12:15 A. M.
Jimmy Garrigan's Orchestra	12:30
Sign Off	1:00

979 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Wednesday, November 12, 1930.

Uncle John and His Family	6:25 A. M.
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Bulova Time Clock	8:00
Popular Bits—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30
Children's Program	8:45
Libby, McNeil & Libby—N. B. C.	9:00
Reading Room	9:15
Wildroot Program—N. B. C.	9:45
Forecast School of Cookery—N. B. C.	10:00
Bulova Time Signal	10:30
Evening American News Flashes	10:31
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	12:00
North Shore Church	12:01 P. M.
Evening American News Flashes	12:30
Atlas Announcement	12:45
George Devron's Orchestra	12:46
Bulova Time Signal	1:15
Studio—Television	1:16

Publix Theatre Reporter	1:40
George Devron's Orchestra	1:45
Washington Shirt Co. Announcement	2:00
Studio—Television	2:01
Special Announcement	2:15
White City Marathon	2:16
Band of 1000 Melodies—N. B. C.	2:30
How to Get a Job—N. B. C.	2:45
Bulova Time Signal	3:00
Studio Program	3:01
Hayes Announcement	3:30
Studio Program	3:31
Special Announcement	3:59
White City Marathon	4:00
Evening American News Flashes	4:15
Bower Announcement	4:30
Studio—Television	4:31
Bulova Time Signal	4:59
Sign Off	5:00
Phil Cook—N. B. C.	6:30
Curtiss Candy Co.	6:45
Jimmy Garrigan's Orchestra	6:50
Bulova Time Signal	7:00
George Devron's Orchestra	7:01
Hayes Announcement	7:30
Jimmy Garrigan's Orchestra	7:31
Washington Shirt Co. Announcement	7:59
Al Smith—N. B. C.	8:00
Studio—Television	8:15
Publix Theatre Reporter—Television	8:25
Bower Announcement	8:30
Giant Finger of the Air	8:31
Chicago Theatre	9:00
Atlas Announcement	9:30
George Devron's Orchestra	9:31
Special Announcement	9:45
White City Marathon	9:46
Bulova Time Signal	10:00
Weather Report	10:01
The Music Box	10:03
Golf Tour	10:20
Jimmy Garrigan's Orchestra	10:37
Royal York Orchestra—N. B. C.	11:00

	Special Announcement	11:30
	White City Marathon	11:31
	George Devron's Orchestra	11:45
	Bulova Time Signal	12:00
	Jimmy Garrigan's Orchestra	12:01
980	George Devron's Orchestra	12:15
	Jimmy Garrigan's Orchestra	12:30
	Sign Off	1:00

981 *W I B O Program Log.*

535.7 Meters—560 Kilocycles.

Thursday, November 13, 1930.

Uncle John	6:25
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Bulova Time Clock	8:00
Popular Bits—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30
Children's Program	8:45
Libby, McNeil & Libby—N. B. C	9:00
Reading Room	9:15
News Flashes	9:45
Bulova Time Signal	9:59
Forecast School of Cookery—N. B. C.	10:00
Northon Warren—N. B. C.	10:30
Around the Home	10:45
Uptown Chicago Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00
News Flashes	12:30
What's Good in Cupboard Annc.	12:45
Devron	12:46
Bulova Time Signal	1:15
Studio—Television	1:16
Publix Theatre Reporter	1:40
Atlas Annc.	1:45
Devron	1:46
Academy of Arts Opening—N. B. C.	2:00
Bulova Time Signal	3:00
Studio Program	3:01

Bower Annc.	3:30
Studio Program	3:31
Washington Annc.	3:59
White City Ballroom	4:00
American Annc.	4:15
News Flashes	4:16
Studio—Television	4:30
Special Annc.	4:58
Bulova Time Signal	4:59
Sign off	5:00
Midweek Federation—N. B. C.	6:00
Phil Cook—N. B. C.	6:30
Jarman Shoe Program—N. B. C.	7:00
Speaker—Mr. Carroll	7:00½
Garrigan	7:05
Special Annc.	7:10
George Devron	7:11
Atlas Annc.	7:29
Bulova Time Signal	7:30
Garrigan	7:31
Publix Reporter	7:55
Knox Dunlop—N. B. C.	8:00
(Break at 8:15 for Shayne Annc.	
National Sugar—N. B. C.	8:30
Hayes Program	9:00
Publix Program	9:15
Washington Shirt Annc.	9:30
George Devron	9:31
Garrigan	9:45
Bulova Time Signal	10:00
Weather Report	10:01
Music Box	10:03
Bower Annc.	10:29
First Nighter	10:30
Garrigan	11:00
Special Annc.	11:30
White City	11:31
Union Restaurant	11:45
Bulova Time Signal	12:00
Garrigan	12:01
Devron	12:15

Garrigan 12:30
Sign off 1:00

982 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Friday, November 14th, 1930.

Uncle John 6:25
Cheerio—N. B. C. 7:30
Cream of Wheat—N. B. C. 7:45
Bulova Time Clock 8:00
Popular Bits—N. B. C. 8:15
Vermont Lumberjacks—N. B. C. 8:30
Childrens Program 8:45
Libby McNeil Libby—N. B. C. 9:00
Reading Room 9:15
H. J. Heinz Program—N. B. C. 9:45
Musical Appreciation—N. B. C. 10:00
Bulova Time Signal 10:45
What's Good in your cupbo*a*rad 10:46
Upt*w*on Chicago Radio Hour 11:00
Bulova Time Signal 11:59
W P C C 12:00
News Flashes 12:30
Organ—Union Restaurant 12:45
Bulova Time Signal 1:00
Devron 1:01
Washington Shirt Annc. 1:29
Remington Welch 1:30
Theatre Reporter 1:40
White City 1:50
Academy of Arts Bldg.—N. B. C. 2:00
Bulova Time Signal 3:00
Stu*id*o —Television 3:01
Stu*id*o Program 3:16
Bower Annc. 3:30
Studio Program 3:31
Art Kassel Annc. 3:45
Studio Program 3:46
Atlas Annc. 4:00
White City 5:01
Special Annc. 4:15

News Flashes	4:15½
Special Annc.	4:30
Studio—Television	4:31
Bulova Time Signal	4:59
Sign off	5:00
Chicago Theatre	6:00
Bulova Annc.	6:10
Benny Swarts Weather Report	6:11
National Battery—N. B. C.	6:15
Phil Cook—N. B. C.	6:30
Brownbilt Shoes—N. B. C.	6:45
Nestles—N. B. C.	7:00
Garrigan	7:30
Craddock Terry—N. B. C.	7:45
Cluquot Club—N. B. C.	8:00
Washington Shirt Program	8:30
Atlas Annc. Program	9:00
R. K. O.—N. B. C.	9:30
Bulova Annc.	10:00
B. & K. Program	10:01
Hayes Annc.	10:14½
Foreman Clar Program	10:15
Bower Annc.	10:30
Weather Report	10:31
Devron	10:34
White City	10:45
Art Kassel Annc.	10:59
Garrigan—N. B. C.	11:00
White City	11:31
Devron	11:45
Bulova Annc.	12:00
Garrigan	12:15
Devron	12:15
Remington Welch	12:30
Garrigan	1:00
Sign off	1:30

983 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Saturday, November 15, 1930

Uncle John	6:25
Cheerio—N. B. C.	7:30

Cream of Wheat—N. B. C.	7:45
Bulova Time Clock	8:00
Popular Bits—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30
Childrens Program	8:45
Musical Interlude	9:00
Reading Room	9:15
Happy Home Program	9:45
Bulova Time Signal	10:30
News Flashes	10:45
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00
News Flashes	12:30
Hayes Annc.	12:44
Remington Welch	12:45
Washington Shirt Annc.	1:00
Devron	1:01
Bulova Time Signal	1:15
Studio—Television	1:16
Publix Reporter	1:25
Buy Now Announcement	1:30
Remington Welch	1:30½
Buy Now Announcement	1:45
Football Game	1:46
Bower Annc.	4:30
Television	4:31
Bulova Annc.	4:59
Sign off	5:00
George Devron	7:00
Publix Reporter	7:10
Hayes Annc.	7:15
Remington Welch	7:16
Bulova Time Signal	7:29
Fuller Brush—N. B. C.	7:30
General Electric Annc.	8:00
General Electric—N. B. C.	8:00½
General Electric Annc.	9:00
Henrici Announcement	9:00½
Civic Opera—N. B. C.	9:01
Henrici Announcement	10:00
Bulova Time Signal	10:01

Weather Report	10:02
Music Box	10:04
Art Kassel	10:30
Washington Shirt Annc.	11:00
Garrigan	11:01
Bower Annc.	11:30
White City	11:31
Atlas Announcement	11:45
Devron	11:46
Bulova Time Signal	12:00
Garrigan	12:01
Radio Digest Annc.	12:15
Geo. Devron	12:16
Remington Welch	12:30
Garrigan	1:00
Sign off	1:30

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560 Kilocycles—535.7 Meters.

Sunday, November 16, 1930.

Tone Pictures—N. B. C.	7:30
Swedish Services	8:00
Sign off	10:00
Popular Studio Program	12:30
Publix Reporter	12:55
Red Cross Program	1:00
Copeland Smith League	1:30
Art Kassel	2:30
Norwegian Program	3:00
W P C C	4:00
Dr. Fosdick—N. B. C.	4:30
Catholid Hour—N. B. C.	5:00
Sign off	6:00
Popular Studio	7:00
Garrigan	7:15
Chase and Sanborn—N. B. C.	7:30
Pennzoil Program Annc.	8:00
W P C C	8:00½
Pennzoil Program—N. B. C.	9:15
Sign off	9:30
Devron	12:00

White City	12:15
Remington Welch	12:30
Garrigan	1:00
Sign off	1.30

985 *W I B O Program Log.*

560 Kilocycles—535.7 Meters.

Monday, November 17, 1930.

Uncle John	6:25
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Bulova Time Clock	8:00
Popular Bits—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30
Children's Program	8:45
Drug Program—N. B. C.	9:00
Reading Room	9:15
Happy Home Program	9:45
Bulova Time Signal	10:30
News Flashes	10:31
Around the House	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00
Ners Flashes	12:30
Remington Welch	12:45
Bulova Time Signal	1:00
Geo. Devron	1:01
Publix Reporter	1:25
Bower Announcement	1:30
Organ	1:31
Hayes Announcement	1:45
Geo. Devron	1:46
Washington Shirt Annc.	2:00
Studio—Television	2:01
White City	2:15
Chicago Serenade—N. B. C.	2:30
Bulova Time Signal	3:00
Studio Program	3:01
Atlas Annc.	3:30

Granada Golf Program	3:31	
White City	4:00	
Evening Amer. News Flashes	4:15	
Buy Now Annc.	4:30	
Studio Television	4:31	
Bulova Annc.	4:59	
Sign off	5:00	
Merle Thorpe—N. B. C.	7:00	
Roxy—N. B. C.	7:15	
Capbel Hose Annc.	7:30	
Benny Swarts Weather Report	7:31	
Devron	7:35	
Buy Now Annc.	7:45	
Welch—Remington	7:45	
Bulova Annc.	8:00	
Garrigan	8:01	
Hayes Annc.	8:14	
Television	8:15	
Giant Finger	8:30	
Publix Reporter	8:55	
Devron	9:00	
Buy Now Annc.	9:15	White.
White City	9:16	
Van Gunten Speech	9:30	
Atlas Annc.	9:40	
Garrigan	9:41	
Bulova Annc.	10:00	
Weather Report	10:01	
Music Box	10:03	
Washington Shirt Annc.	10:30	
First Nighter	10:31	
Buy Now Announcement	11:00	
Garrigan	11:01	
Art Kassel Annc.	11:30	
White City	11:31	
Geo. Devron	11:45	
986 Bulova Announcement	12:00	
Garrigan	12:01	
Geo. Devron	12:15	
Remington Welch	12:30	
Garrigan	1:00	
Sign off	1:30	

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560 Kilocycles—535.7 Meters.

Tuesday, November 18, 1930.

Uncle John	6:25
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Bylova Time Clock	8:00
Calsodent—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30
Children's Program	8:45
Libby McNeil-Libby—N. B. C.	9:00
Reading Room	9:15
H. J. Heinz—N. B. C.	9:45
Forecast School of Cookery—N. B. C.	10:00
Bulova Time Signal	10:30
News Flashes	10:31
Around the House	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00
News Flashes	12:30
Remington Welch	12:45
Bulova Time Signal	1:00
Devron	1:01
Hayes Annc.	1:24
Publix Theatre Reporter	1:25
Remington Welch	1:30
Atlas Annc.	1:45
Geo. Devron	1:46
Bower Annc.	2:00
Studio—Television	2:01
White City Ballroom	2:15
Chicago Serenade—N. B. C.	2:30
Bulova Time Signal	3:00
Studio Program	3:01
White City	4:01
Evening American News Flashes	4:15
Buy Now Annc.	4:30
Studio—Television	4:31
Bulova Time Signal	4:59

Sign off	5:00
Phil Cook—N. B. C.	6:30
Curtiss Candy Co.	6:45
Speaker (Hearst Square)	6:50
W P C C	7:00
Welch	7:50
Bulova Time Signal	8:00
Garrigan	8:01
Hayes Annc.	8:15
Studio—Television	8:16
Publix Theatre Reporter	8:25
Continental Bakers—N. B. C.	8:30
Enna Jettick—N. B. C.	9:00
Mandel Bros. Annc.	9:15
Rosenthal Program	9:15½
Lucky Strike—N. B. C.	9:30
Campbell Hose Annc.	10:00
Bulova Time Signal	10:01
Weather Report	10:02
Music Box	10:04
Art Kassel	10:30
Atlas Annc.	11:00
Garrigan	11:30
White City	11:45
Bulova Annc.	12:00
Garrigan	12:01
Geo. Devron	12:15
Welch	12:30
Garrigan	1:00
Sign off	1:30

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560 Kilocycles—535.6 Meters.

Wednesday, November 19, 1930.

Uncle John	6:25
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Bulova Time Clock	8:00
Popular Bits—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30

Children's Program	8:45
Libby McNeil-Libby—N. B. C.	9:00
Reading Room	9:15
Wildroot—N. B. C.	9:45
Forecast School of Cookery—N. B. C.	10:00
Bulova Time Signal	10:30
News Flashes	10:31
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00
News Flashes	12:30
Welch	12:45
Bulova Time Signal	1:01
Geo. Devon	1:02
Washington Shirt Annc.	1:24
Publix Theatre Reporter	1:25
Welch	1:30
Hayes Annc.	1:45
Studio—Television	1:46
Bower Annc.	1:59½
International Broadcast—N. B. C.	2:00
Bulova Time Signal	3:00
White City Ballroom	3:01
Atlas Annc.	3:15
Studio Program	3:16
Art Kassel Annc.	3:30
Studio Program	3:31
White City	4:00
News Flashes	4:15
Studio—Television	4:30
Bulova Annc.	4:59
Sign off	5:00
Phil Cook—N. B. C.	6:30
Curtiss Candy Prog.	6:50
Wm. Hardk—N. B. C.	6:55
Bulova Annc.	7:00
Welch Organ	7:01
Hayes Annc.	7:15
Devron	7:15
Garrigan	7:31
Washington Shirt Annc.	8:00
Devron	8:01

Television	8:15
Publix Reporter	8:25
Giant Finger of the Air	8:30
Chicago Theatre	9:00
Campbell Hose Annc.	9:30
Bower Program	9:31
White City	9:45
Bulova Annc.	10:00
Music Box	10:01
First Nighter	10:30
Canadian Pacific—N. B. C.	11:00
White City	11:30
Geo. Devron	11:45
Bulova Annc.	12:00
Garrigan	12:01
Devron	12:15
Welch—Organ	12:30
Garrigan	1:00
Sign off	1:30

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560 Kilocycles—535.7 Meters.

Thursday, Nov. 20th, 1930.

Uncle John	6:25
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Curtiss Candy Annc.	8:00
Bulova Time Clock	8:01
Popular Bits—N. B. C.	8:15
Vermont Lumberjacks—N. B. C.	8:30
Children's Program	8:45
Curtiss Candy Annc.	8:59
Libby McNeil-Libby—N. B. C.	9:00
Reading Room	9:15
Kellogg Program	9:45
Forecast School of Cookery—N. B. C.	10:00
Northom Warren—N. B. C.	10:30
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	11:59
W P C C	12:00

News Flashes	12:30
What's Good in your Cupboard	12:45
Welch	12:46
Bulova Time Signal	1:00
Geo. Devron	1:01
Bower Annc.	1:24
Publix Theatre Reporter	1:25
Welch	1:30
Hayes Annc.	1:45
Geo. Devron	1:46
Washington Shirt Annc.	2:00
Studio—Television	2:01
Sylvano Annc.	2:15
White City	2:16
Chicago Serenade—N. B. C.	2:30
Bulova Time Signal	3:00
Studio Program	3:01
Atlas Annc.	3:15
Studio Program	3:16
Curtiss Candy Co.	3:30
Studio Program	3:31
Sylvano	3:45
Studio Program	3:46
White City	4:00
News Flashes	4:15
Curtiss Annc.	4:30
Studio—Television	4:31
Bulova Annc.	4:59
Sign off	5:00
Midweek Federation—N. B. C.	6:00
Phil Cook—N. B. C.	6:30
Jarman Shoe—N. B. C.	6:45
Jarman Annc.	7:00
Organ	7:01
Sylvano	7:15
Devron	7:16
Reporter	7:25
Bulova Time Signal	7:30
Garrigan	7:31
Campbell Annc.	7:59
Knox Dunlop—N. B. C.	8:00
National Sugar—N. B. C.	8:30
Hayes Program	9:00

	Publix Program	9:15
	Sylvano	9:30
	Atlas Annc.	9:45
	Bulova Time	10:00
	Weather R-port	10:01
	Music Box	10:03
	Art Kassel	10:30
	Bower Annc.	11:00
990	Garrigan	11:01
	Buy Now Annc.	11:30
	White City	11:31
	Sylvano	11:45
	Bulova Annc.	12:00
	Garrigan	12:01
	Devron	12:15
	Remington Welch	12:30
	Sylvano	1:00
	Garrigan	1:30
	Sign off	2:00

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560 Kilocycles—5.7 Meters.

Friday, November 21st.

Uncle John and his Family	6:25
Cheerio—N. B. C	7:30
Cream of Wheat Program—N. B. C	7:45
Campbell Hosiery Program	8:00
Popular Bits—N. B. C	8:15
Vermont Lumberjacks—N. B. C	8:30
Children's Program	8:45
Libby McNeil Libby—N. B. C	9:00
Reading Room	9:15
H. J. Heinz—N. B. C	9:45
Musical Appreciation—N. B. C	10:00
Bulova Time Signals	10:30
What's Good in Your Cupboard	10:31
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	12:00
W P C C	12:01
Evening American News Flashes	12:30

Organ	12:45
George Devron	1:00
Washington Shirt Announcement	1:30
Publix Theatre Reporter	1:25
Organ	1:30
Bower Announcement	1:45
Studio—Television	1:46
Baby Chick Program—N. B. C	2:00
Hayes Announcement	2:15
White City Ballroom	2:16
Philharmonic Orchestra—N. B. C	2:30
Bulova Time Signal	3:00
Dancing Melodies—N. B. C	3:01
Twilight Circle—N. B. C	3:25
Atlas Announcement	4:00
White City	4:01
Studio—Television	4:15
Evening American News Flashes	4:30
Bulova Time Signal	4:59
Sign Off until 6:00	5:00
Chicago Theatre Program	6:00
Weather Report	6:10
National Battery—N. B. C	6:15
Phil Cook—N. B. C	6:30
Brown Bilt Shoes—N. B. C.	6:45
Nestle's Chocolateers—N. B. C	7:00
Jimmy Garrigan	7:30
Hayes Announcement	7:44
Craddock Terry—N. B. C	7:45
Clicquot Club Eskimos—N. B. C	8:00
Washington Shirt Program	8:30
Atlas Brewing Program	9:00
Radio Keith Orpheum—N. B. C	9:30
Bulova Time Signal	10:00
Publix Reporter's Program	10:01
Campbell Announcement	10:15
Frank Sylvano Orchestra	10:16
Bower Announcement	10:29
The First Nighter	10:30
Jimmy Garrigan	11:00
White City Ballroom	11:30
Frank Dylvano Orchestra	11:45

	Jimmy Garrigan	12:00
992	12:15 George Devron	12:15
	Organ—Welch	12:30
	Bulova Time Signal	1:00
	Frank Sylvano	1:01
	Jimmy Garrigan	1:30
	Sign Off	2:00

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560 Kilocycles—535.7 Meters.

Saturday, Nov. 22.

6:30 Uncle John	6:30
Cheerio—N. B. C.	7:30
Cream of Wheat—N. B. C.	7:45
Popular Bits—N. B. C.	8:00
Vermont Lumberjacks—N. B. C.	8:30
Childrens Program	8:45
Musical Interlude	9:00
Reading Room	9:15
Happy Home Program	9:45
Bulova Time Signal	10:30
Evening American News Flashes	10:31
Around the Home	10:45
Uptown Chicago Radio Hour	11:00
Bulova Time Signal	12:00
W P C C	12:01
Evening American News Flashes	12:30
Washington Shirt Announcement	12:45
Organ	12:46
Bulova Time Signal	1:00
George Devron's Orchestra	1:01
Football Announcement	1:14
Studio—Television	1:15
Hayes Announcement	1:29
Organ	1:30
Publix Theatre Reporter	1:45
Gootball Game	1:50
Bower Announcement	4:30
Studio—Television	4:31
Bulova Time Signal	4:59

Sign off	5:00
Organ	7:00
Publix Theatre Reporter	7:13
Bulova Time Signal	7:18
Jimmy Garrigan	7:19
Hayes Announcement	7:29
Fuller Brush—N. B. C.	7:30
General Electric Ann.	8:00
General Electric—N. B. C.	8:00½
General Electric Ann.	9:00
Henrici Announcement	9:01
Civic Opera—N. B. C.	9:01½
Henrici Announcement	10:00
Bulova Time Signal	10:01
Music Box	10:02
Weather Report	10:12
Frank Sylvano	10:15
Washington Shirt Ann.	10:30
Art Kassel	10:31
Bower Announcement	11:00
Jimmy Garrigan	11:01
White City	11:30
Frank Sylvano Orchestra	12:00
George Devro	12:15
Remington Welch—Organ	12:30
Frank Sylvano	1:00
Jimmy Garrigan	1:30
Sign off	2:00

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560 Kilocycles—535.7 Meters.

Sunday, November 23.

Tone Pictures—N. B. C.	7:30
Swedish Services	8:00
Sign off	10:00
Popular Studio Program	10:30
Organ	12:45
Publix Theatre Reporter	1:00
Meditations of Man	1:05
B. H. Herdil Speech	1:30